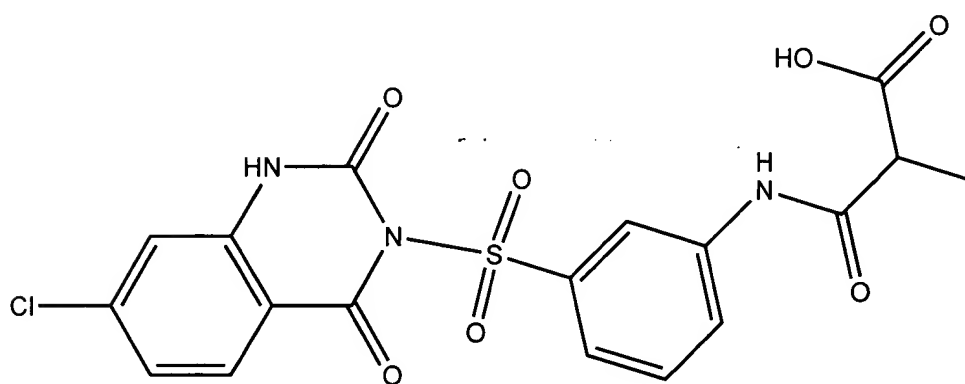


2-{3-[(7-chloro-2,4(1H,3H)-quinazolin-3-yl)sulfonyl]phenylaminocarbonyl}propionic acid



2-{3-[(7-chloro-2,4(1H,3H)-quinazolin-3-yl)sulfonyl]phenylaminocarbonyl}propionic acid

FILE 'REGISTRY' ENTERED AT 16:12:13 ON 24 JUL 2001
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2001 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 23 JUL 2001 HIGHEST RN 347837-42-7
DICTIONARY FILE UPDATES: 23 JUL 2001 HIGHEST RN 347837-42-7

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT
for details.

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=>

Uploading C:\STNEXP4\QUERIES\09763213 (101).str

L1 STRUCTURE UPLOADED

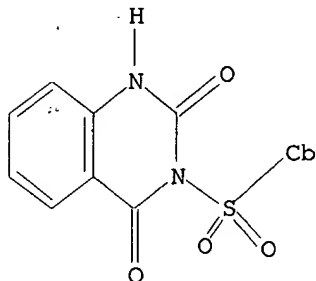
=> que L1

L2 QUE L1

=> d 12

L2 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

L2 QUE ABB=ON PLU=ON L1

=> s 12

SAMPLE SEARCH INITIATED 16:12:51 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 54 TO ITERATE

100.0% PROCESSED 54 ITERATIONS 11 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 640 TO 1520
PROJECTED ANSWERS: 22 TO 418

L3 11 SEA SSS SAM L1

=> s 12 sss full
FULL SEARCH INITIATED 16:13:14 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 771 TO ITERATE

100.0% PROCESSED 771 ITERATIONS 97 ANSWERS
SEARCH TIME: 00.00.01

L4 97 SEA SSS FUL L1

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	133.87	134.02

FILE 'CAPLUS' ENTERED AT 16:13:23 ON 24 JUL 2001
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1947 - 24 Jul 2001 VOL 135 ISS 5
FILE LAST UPDATED: 23 Jul 2001 (20010723/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

CAPLUS now provides online access to patents and literature covered in CA from 1947 to the present. On April 22, 2001, bibliographic information and abstracts were added for over 2.2 million references published in CA from 1947 to 1966.

The CA Lexicon is now available in the Controlled Term (/CT) field.

Enter HELP LEXICON for full details.

Attention, the CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

=> s 14

L5 5 L4

=> d fbib abs hitstr tot

L5 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 2001:338384 CAPLUS

DN 134:348278

TI Inhibitors against vascular lipid deposition containing
chymase-inhibiting
substances

IN Fukami, Harukazu; Urata, Hidenori

PA Suntory Limited, Japan

SO PCT Int. Appl., 63 pp.

CODEN: PIXXD2

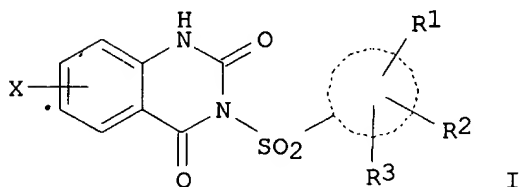
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001032214	A1	20010510	WO 2000-JP7706	20001101
	W: AU, CA, CN, HU, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
				JP 1999-311257 A	19991101

GI



AB Preventive or therapeutic agents for diseases accompanied with vascular function disorders related to deposition of lipid on vessel walls, contg. specific chymase inhibitors as the active ingredient. Quinazoline derivs.

of general formula (I) are usable as the specific chymase inhibitor. In said formula, A is an arom. ring.

IT 189062-66-6P 259536-59-9P 259536-60-2P

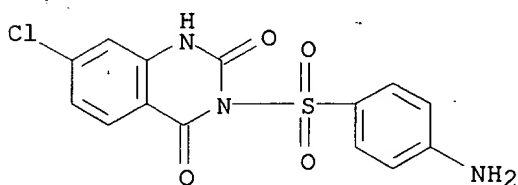
259536-61-3P 259536-62-4P 259536-63-5P
259536-64-6P 259536-65-7P 259536-66-8P
259536-67-9P 259536-68-0P 259536-69-1P
259536-70-4P 259536-71-5P 259536-72-6P
259536-73-7P 259536-74-8P 259536-75-9P
259536-76-0P 259536-77-1P 259536-78-2P
259536-79-3P 259536-80-6P 259536-81-7P
259536-82-8P 259536-83-9P 259536-84-0P
259536-87-3P 259536-88-4P 259536-89-5P
259536-91-9P 338998-94-0P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(inhibitors against vascular lipid deposition contg. quinazoline chymase-inhibiting substances)

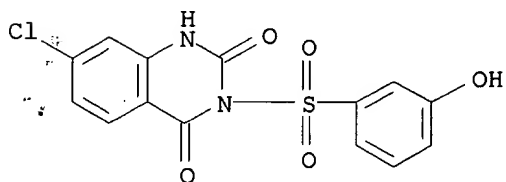
RN 189062-66-6 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-aminophenyl)sulfonyl]-7-chloro- (9CI)
(CA INDEX NAME)



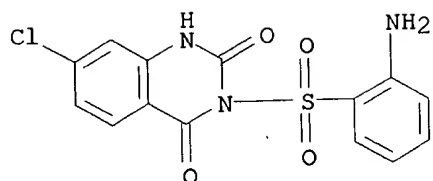
RN 259536-59-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3-hydroxyphenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

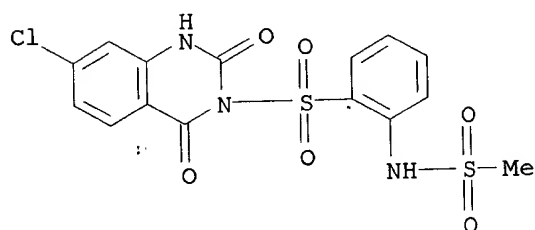


RN 259536-60-2 CAPLUS

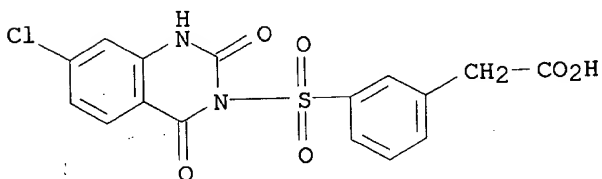
CN 2,4(1H,3H)-Quinazolinedione, 3-[(2-aminophenyl)sulfonyl]-7-chloro- (9CI)
(CA INDEX NAME)



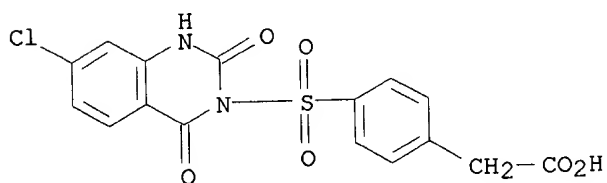
RN 259536-61-3 CAPLUS
 CN Methanesulfonamide, N-[2-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 259536-62-4 CAPLUS
 CN Benzeneacetic acid, 3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)

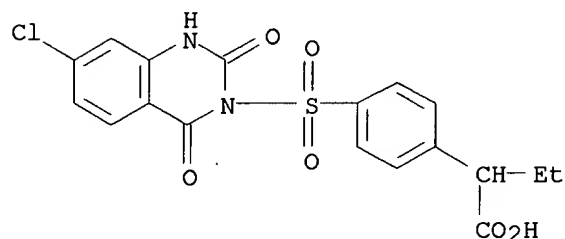


RN 259536-63-5 CAPLUS
 CN Benzeneacetic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



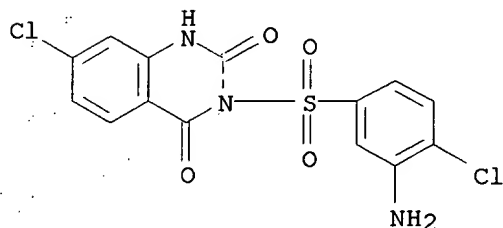
RN 259536-64-6 CAPLUS

CN Benzeneacetic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-.alpha.-ethyl- (9CI) (CA INDEX NAME)



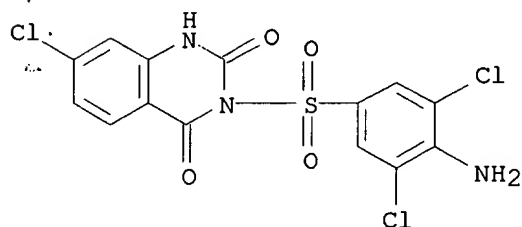
RN 259536-65-7 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(3-amino-4-chlorophenyl)sulfonyl]-7-chloro- (9CI) (CA INDEX NAME)



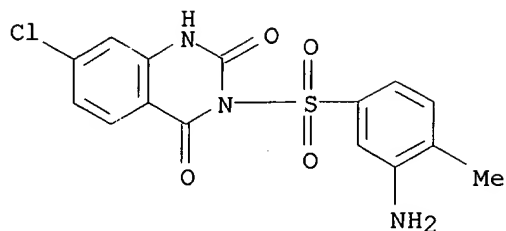
RN 259536-66-8 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-amino-3,5-dichlorophenyl)sulfonyl]-7-chloro- (9CI) (CA INDEX NAME)



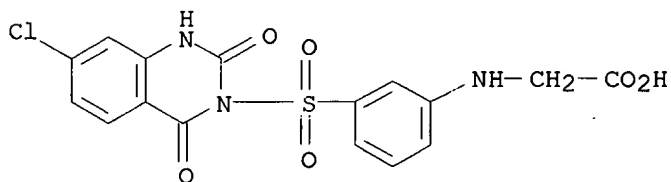
RN 259536-67-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(3-amino-4-methylphenyl)sulfonyl]-7-chloro- (9CI) (CA INDEX NAME)



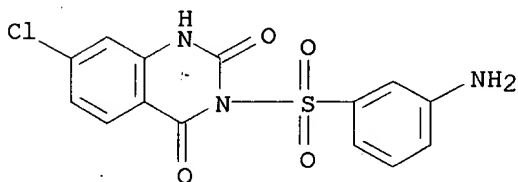
RN 259536-68-0 CAPLUS

CN Glycine, N-[3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



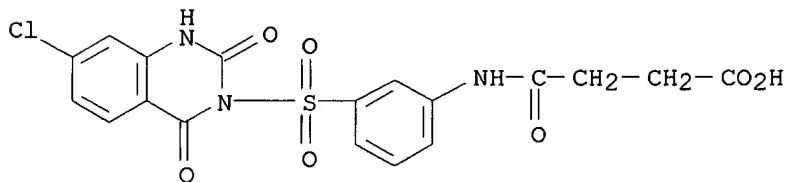
RN 259536-69-1 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(3-aminophenyl)sulfonyl]-7-chloro- (9CI) (CA INDEX NAME)



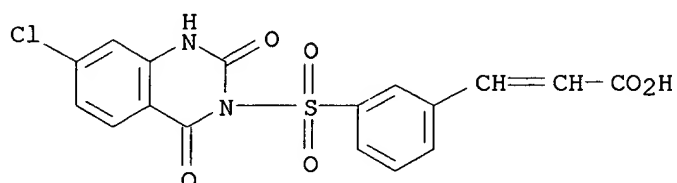
RN: 259536-70-4 CAPLUS

CN Butanoic acid, 4-[[3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)



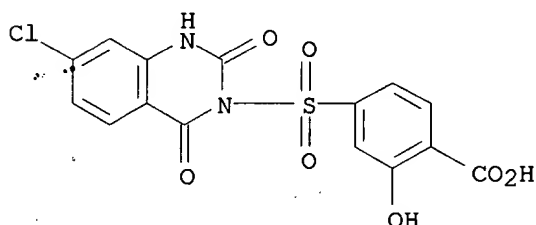
RN 259536-71-5 CAPLUS

CN 2-Propenoic acid, 3-[3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



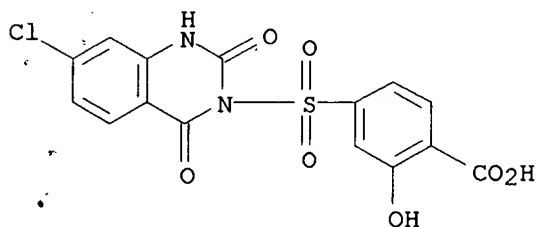
RN 259536-72-6 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy- (9CI) (CA INDEX NAME)



RN 259536-73-7 CAPLUS

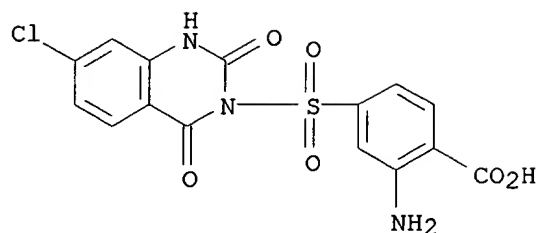
CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy-, monosodium salt (9CI) (CA INDEX NAME)



● Na

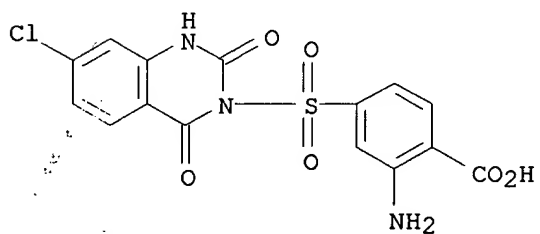
RN 259536-74-8 CAPLUS

CN Benzoic acid, 2-amino-4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



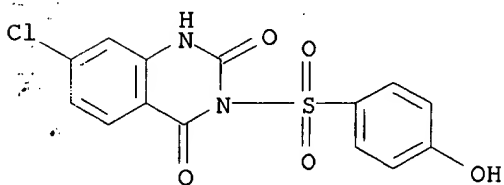
RN 259536-75-9 CAPLUS

CN Benzoic acid, 2-amino-4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-, monosodium salt (9CI) (CA INDEX NAME)



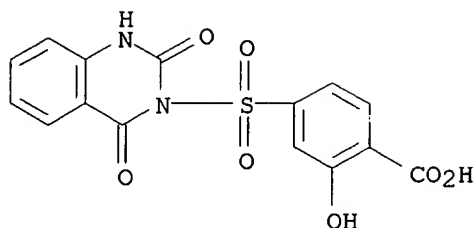
● Na

RN 259536-76-0 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-hydroxyphenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

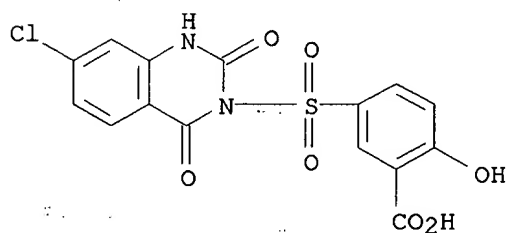
RN 259536-77-1 CAPLUS

CN Benzoic acid, 4-[(1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy- (9CI) (CA INDEX NAME)



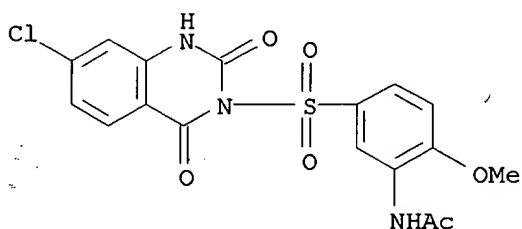
RN 259536-78-2 CAPLUS

CN Benzoic acid, 5-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy- (9CI) (CA INDEX NAME)



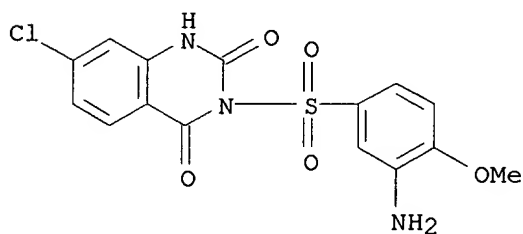
RN 259536-79-3 CAPLUS

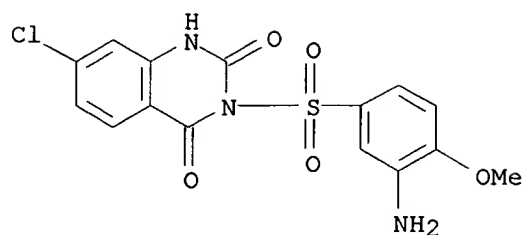
CN Acetamide, N-[5-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-methoxyphenyl]- (9CI) (CA INDEX NAME)



RN 259536-80-6 CAPLUS

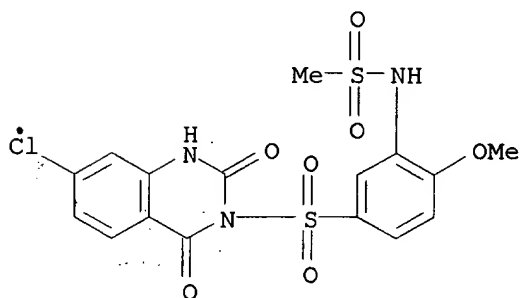
CN 2,4-(1H,3H)-Quinazolinedione, 3-[(3-amino-4-methoxyphenyl)sulfonyl]-7-chloro- (9CI) (CA INDEX NAME)





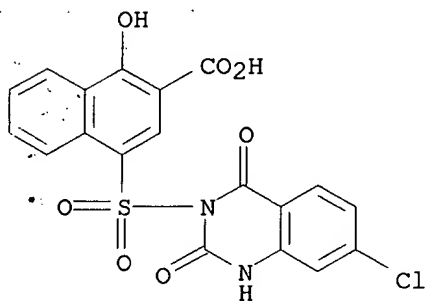
RN 259536-81-7 CAPLUS

CN Methanesulfonamide, N-[5-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-methoxyphenyl]- (9CI) (CA INDEX NAME)



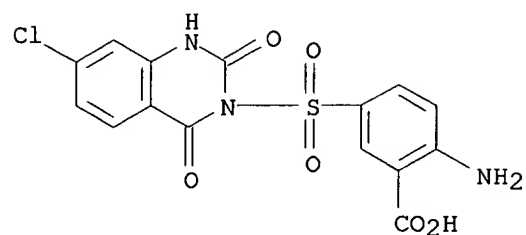
RN 259536-82-8 CAPLUS

CN 2-Naphthalenecarboxylic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-1-hydroxy- (9CI) (CA INDEX NAME)



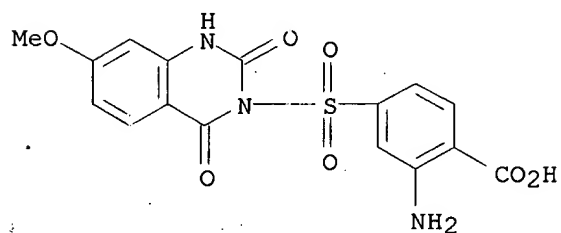
RN 259536-83-9 CAPLUS

CN Benzoic acid, 2-amino-5-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



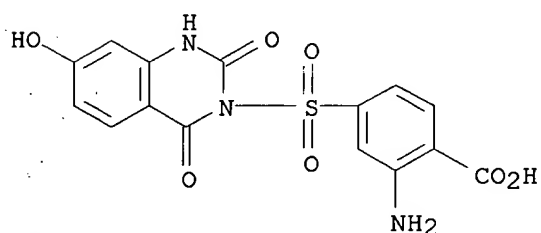
RN 259536-84-0 CAPLUS

CN Benzoic acid, 2-amino-4-[(1,4-dihydro-7-methoxy-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



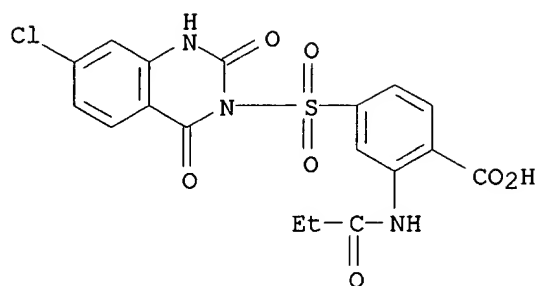
RN 259536-87-3 CAPLUS

CN Benzoic acid, 2-amino-4-[(1,4-dihydro-7-hydroxy-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



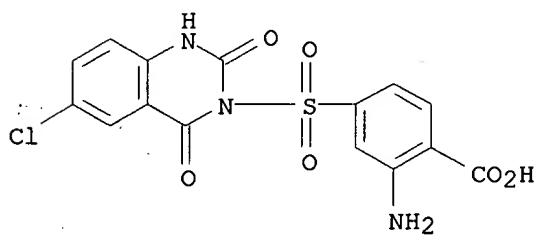
RN 259536-88-4 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-[(1-oxopropyl)amino]- (9CI) (CA INDEX NAME)



RN 259536-89-5 CAPLUS

CN Benzoic acid, 2-amino-4-[(6-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



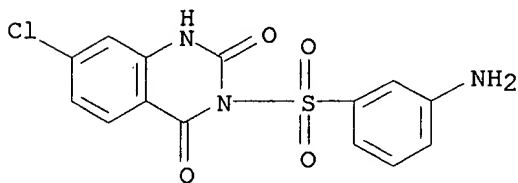
RN 259536-91-9 CAPLUS

CN 2,4(1H,3H)-Quinazolidinedione, 3-[(3-aminophenyl)sulfonyl]-7-chloro-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 259536-69-1

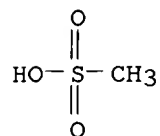
CMF C14 H10 Cl N3 O4 S



CM 2

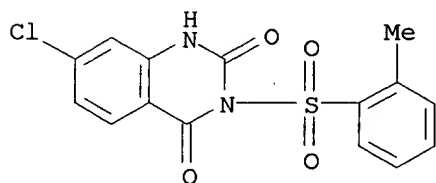
CRN 75-75-2

CMF C H4 O3 S



RN 338998-94-0 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(2-methylphenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

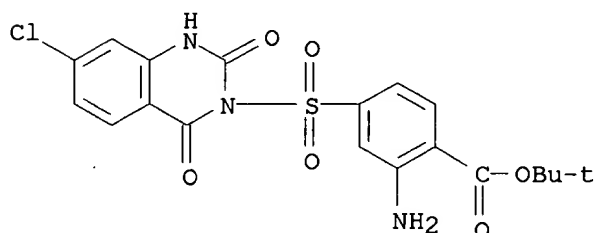


IT 259537-02-5P 338998-96-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(inhibitors against vascular lipid deposition contg. quinazoline
chymase-inhibiting substances)

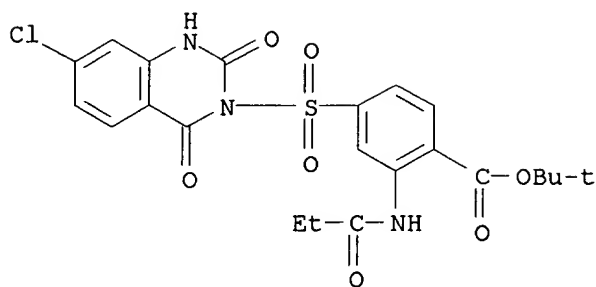
RN 259537-02-5 CAPLUS

CN Benzoic acid, 2-amino-4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 338998-96-2 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]-2-[(1-oxopropyl)amino]-, 1,1-dimethylethyl ester
(9CI) (CA INDEX NAME)



RE.CNT 5

RE

- (1) Bult, H; European Journal of Pharmacology 1999, V375(3), P157
- (2) Paananen, K; Journal of Biological Chemistry 1994, V269(3), P2023 CAPLUS
- (3) Suntory Limited; US 5814631 A CAPLUS
- (4) Suntory Limited; WO 9711941 A1 CAPLUS
- (5) Suntory Limited; EP 795548 A1 1997 CAPLUS

L5: ANSWER 2 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 2000:530563 CAPLUS

DN 133:248824

TI Substituted 3-phenylsulfonylquinazoline-2,4-dione derivatives as novel nonpeptide inhibitors of human heart chymase

AU Fukami, Harukazu; Imajo, Seiichi; Ito, Akiko; Kakutani, Saki; Shibata, Hiroshi; Sumida, Motoo; Tanaka, Taisaku; Niwata, Shinjiro; Saitoh, Masayuki; Kiso, Yoshinobu; Miyazaki, Mizuo; Okunishi, Hideki; Urata, Hidenori; Arakawa, Kikuo

CS Institute for Biomedical Research, Suntory Ltd., Osaka, 618-8503, Japan

SO Drug Des. Discovery (2000), 17(1), 69-84

CODEN: DDDIEV; ISSN: 1055-9612

PB Harwood Academic Publishers

DT Journal

LA English

AB A series of 3-phenylsulfonylquinazoline-2,4-dione derivs. have been synthesized and evaluated for their ability to inhibit human heart chymase. The structure-activity relation studies on these compds. gave the following results. The Ph moiety of quinazoline participates in a hydrophobic interaction where an optimum size is required. In this moiety, 7-chloroquinazoline is the best moiety for inhibiting chymase, chymotrypsin and cathepsin G. A 3-phenylsulfonyl moiety substituted with hydrophobic electron-withdrawing groups at the 4-position potentiated the activity. Anthranil moiety also enhanced the activity. Pyridylmethyl

and

N-pyridylacetamide at the 1-position gave an IC₅₀ in the order of 10⁻⁸M. Mol. modeling studies on the interaction of 7-chloro-3-(4-chlorophenylsulfonyl)quinazoline-2,4(1H, 3H)-dione with the active site

of

human heart chymase suggested that the Ph moiety of quinazoline interacts with the hydrophobic P1 pocket, the 3-phenylsulfonyl moiety resides in

the

S1'-S2' subsites, the moiety at the 1-position locates in the S2-S3

subsites and the 4-carbonyl and 3-sulfonyl group interact with the oxyanion hole and the His57 side-chain of chymase, resp.

IT **189061-05-0P**

RL: BAC (Biological activity or effector, except adverse); BPR

(Biological

process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);

BIOL (Biological study); PREP (Preparation); PROC (Process)

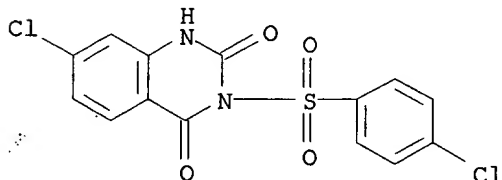
(substituted phenylsulfonylquinazolinedione derivs. as novel

nonpeptide

inhibitors of human heart chymase in relation to structure and inhibition of chymotrypsin and cathepsin G)

RN 189061-05-0 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-chlorophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)



IT **116445-93-3P 116445-95-5P 189061-07-2P**

189061-10-7P 189061-12-9P 189061-16-3P

189061-18-5P 189061-20-9P 189061-22-1P

189061-24-3P 189061-26-5P 189061-29-8P

189061-31-2P 189061-35-6P 189061-37-8P

189061-43-6P 189061-45-8P 189061-46-9P

189061-47-0P 189061-48-1P 189061-54-9P

189061-56-1P 189061-59-4P 189062-46-2P

189062-47-3P 189062-51-9P 189062-52-0P

189062-55-3P 189062-61-1P 189062-66-6P

189062-67-7P 189062-69-9P 189062-70-2P

259536-59-9P 259536-69-1P 259536-72-6P

259536-74-8P 259536-76-0P 294865-37-5P

294865-38-6P 294865-39-7P 294865-40-0P

294865-41-1P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

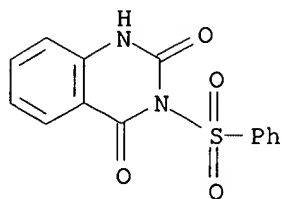
(substituted phenylsulfonylquinazolinedione derivs. as novel

nonpeptide

inhibitors of human heart chymase in relation to structure and inhibition of chymotrypsin and cathepsin G)

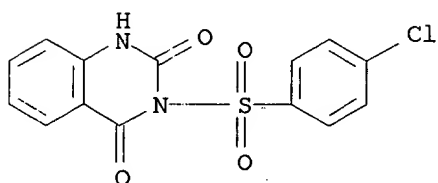
RN 116445-93-3 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



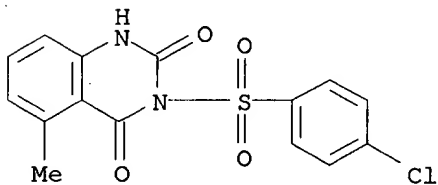
RN 116445-95-5 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]- (9CI) (CA INDEX NAME)



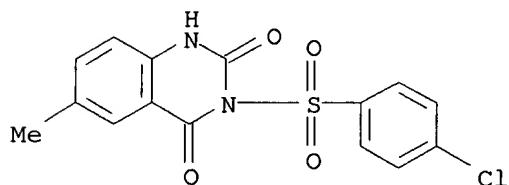
RN 189061-07-2 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-5-methyl- (9CI) (CA INDEX NAME)



RN 189061-10-7 CAPLUS

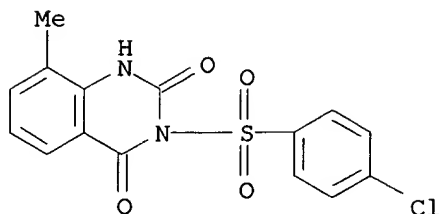
CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-6-methyl- (9CI) (CA INDEX NAME)



RN 189061-12-9 CAPLUS

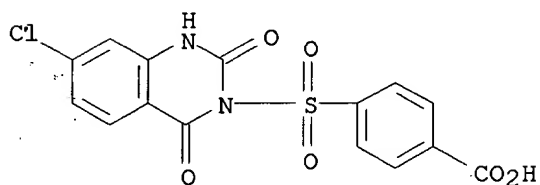
CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-8-methyl- (9CI)

(CA INDEX NAME)

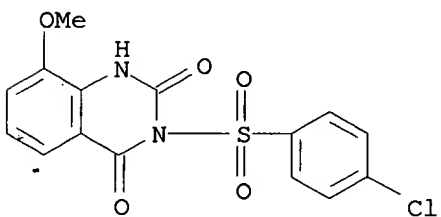


RN 189061-16-3 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)

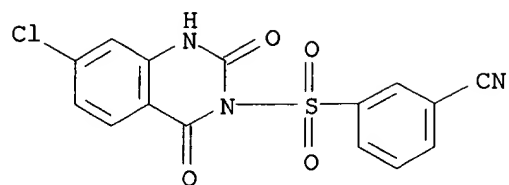


RN 189061-18-5 CAPLUS

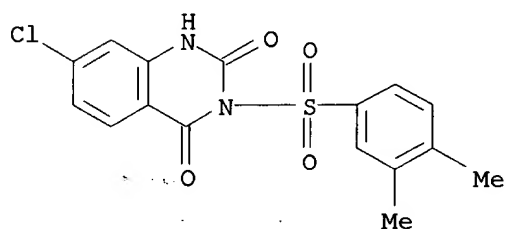
CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-8-methoxy- (9CI)
(CA INDEX NAME)

RN 189061-20-9 CAPLUS

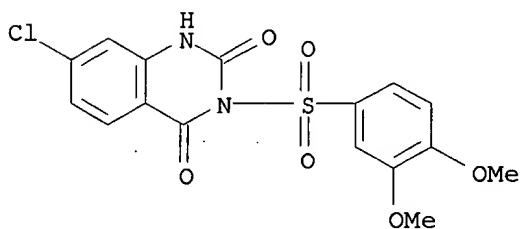
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3-cyanophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)



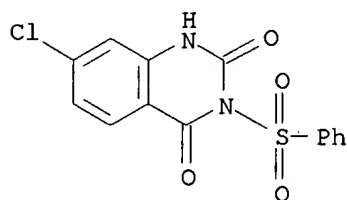
RN 189061-22-1 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3,4-dimethylphenyl)sulfonyl]-
(9CI) (CA INDEX NAME)

RN 189061-24-3 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3,4-dimethoxyphenyl)sulfonyl]-
(9CI) (CA INDEX NAME)

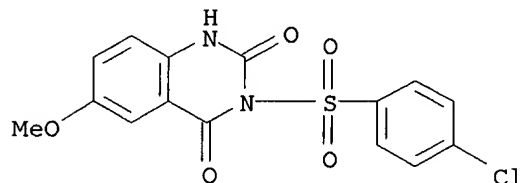
RN 189061-26-5 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-(phenylsulfonyl)- (9CI) (CA
INDEX
NAME)

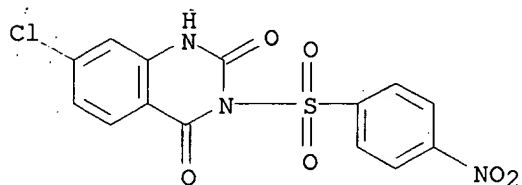
RN 189061-29-8 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-6-methoxy-
(9CI)

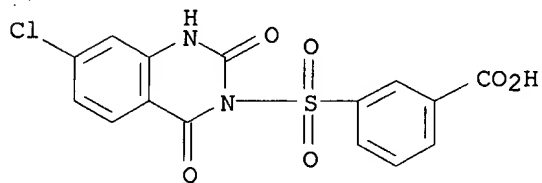
(CA INDEX NAME)



RN 189061-31-2 CAPLUS

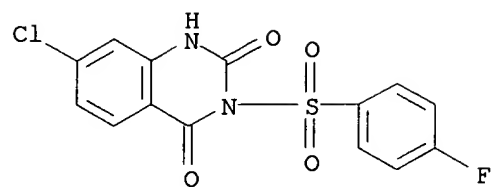
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-nitrophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

RN 189061-35-6 CAPLUS

CN Benzoic acid, 3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)

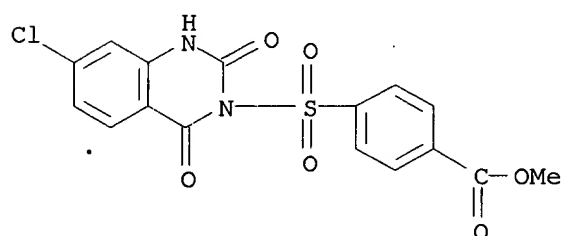
RN 189061-37-8 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-fluorophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)



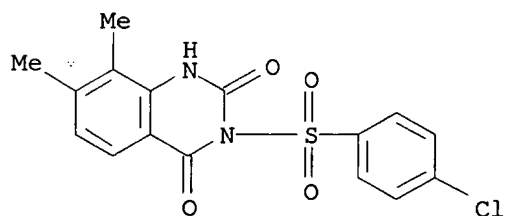
RN 189061-43-6 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



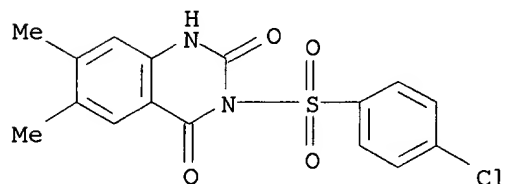
RN 189061-45-8 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7,8-dimethyl- (9CI) (CA INDEX NAME)



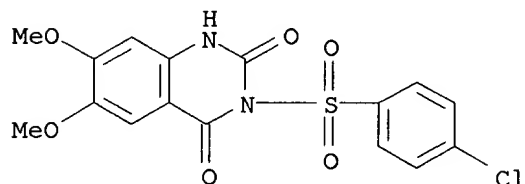
RN 189061-46-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-6,7-dimethyl- (9CI) (CA INDEX NAME)



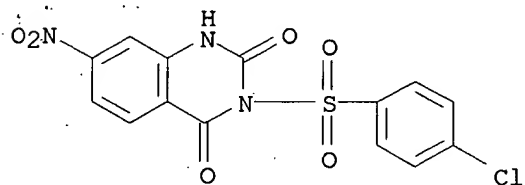
RN 189061-47-0 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-6,7-dimethoxy- (9CI) (CA INDEX NAME)



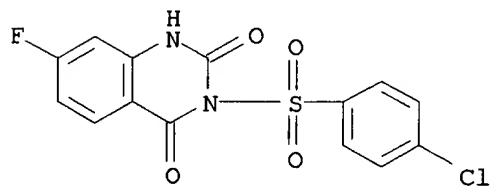
RN 189061-48-1 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-nitro- (9CI) (CA INDEX NAME)



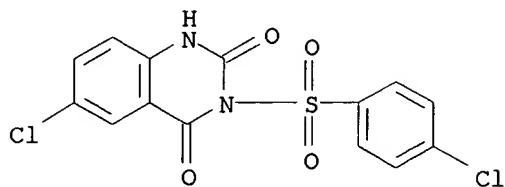
RN 189061-54-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-fluoro- (9CI) (CA INDEX NAME)

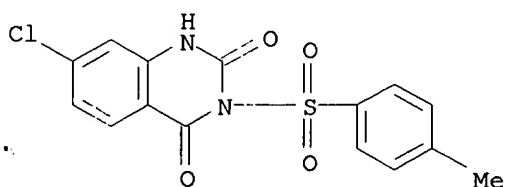


RN 189061-56-1 CAPLUS

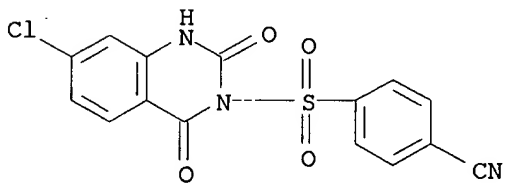
CN 2,4(1H,3H)-Quinazolinedione, 6-chloro-3-[(4-chlorophenyl)sulfonyl]- (9CI) (CA INDEX NAME)



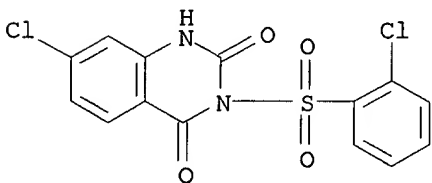
RN 189061-59-4 CAPLUS
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-chlorophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)



RN 189062-46-2 CAPLUS
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-cyanophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

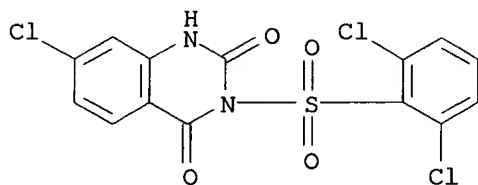


RN 189062-47-3 CAPLUS
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(2-chlorophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)



RN 189062-51-9 CAPLUS
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(2,6-dichlorophenyl)sulfonyl]-

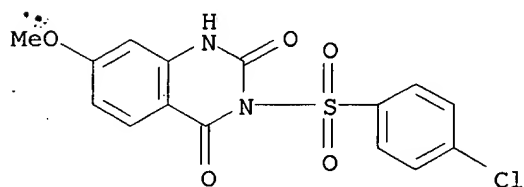
(9CI) (CA INDEX NAME)



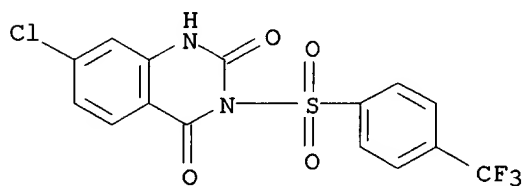
RN 189062-52-0 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-methoxy-
(9CI)

(CA INDEX NAME)

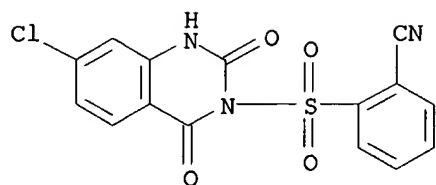


RN 189062-55-3 CAPLUS

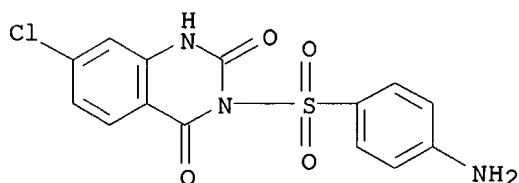
CN 2,4(1H,3H)-Quinazolinedione,
7-chloro-3-[[4-(trifluoromethyl)phenyl]sulfonyl]- (9CI) (CA INDEX NAME)

RN 189062-61-1 CAPLUS

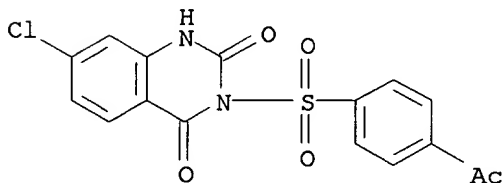
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(2-cyanophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)



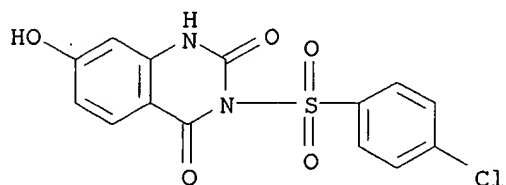
RN 189062-66-6 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-aminophenyl)sulfonyl]-7-chloro- (9CI)
(CA INDEX NAME)

RN 189062-67-7 CAPLUS

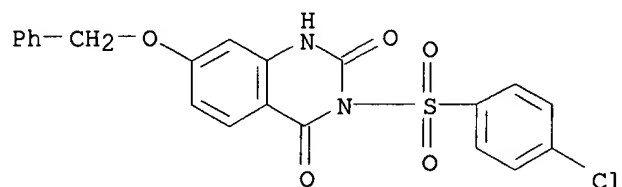
CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-acetylphenyl)sulfonyl]-7-chloro- (9CI)
(CA INDEX NAME)

RN 189062-69-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-hydroxy- (9CI)
(CA INDEX NAME)

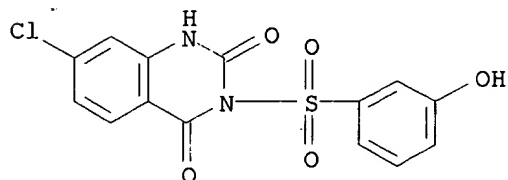
RN 189062-70-2 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-(phenylmethoxy)- (9CI) (CA INDEX NAME)



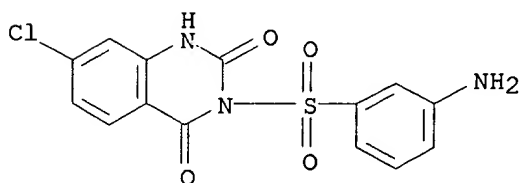
RN 259536-59-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3-hydroxyphenyl)sulfonyl]- (9CI)
(CA INDEX NAME)



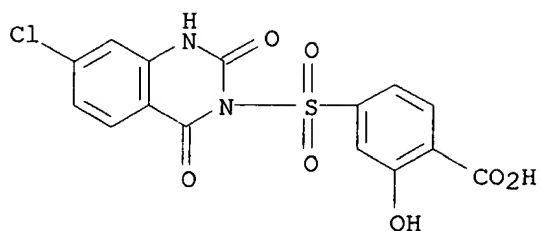
RN 259536-69-1 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(3-aminophenyl)sulfonyl]-7-chloro- (9CI)
(CA INDEX NAME)



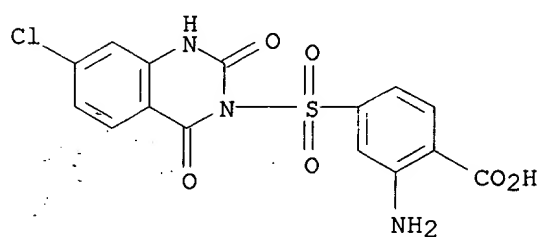
RN 259536-72-6 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy- (9CI) (CA INDEX NAME)

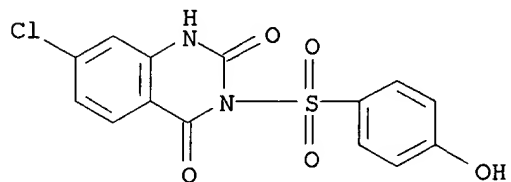


RN 259536-74-8 CAPLUS

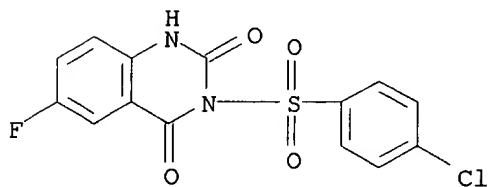
CN Benzoic acid, 2-amino-4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



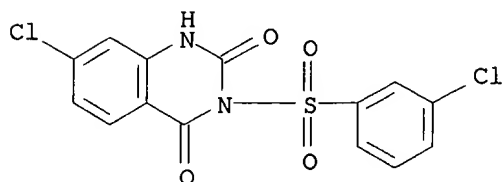
RN 259536-76-0 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-hydroxyphenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

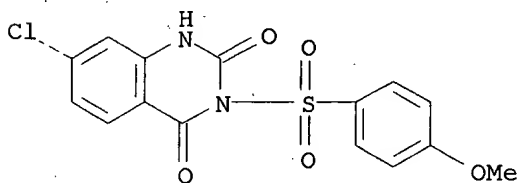
RN 294865-37-5 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-6-fluoro- (9CI)
(CA INDEX NAME)

RN 294865-38-6 CAPLUS

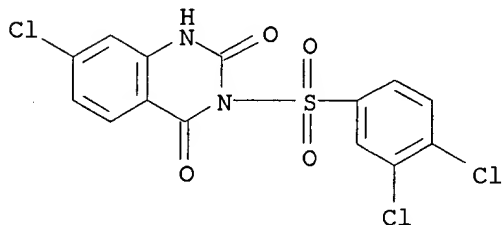
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3-chlorophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

RN 294865-39-7 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-methoxyphenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

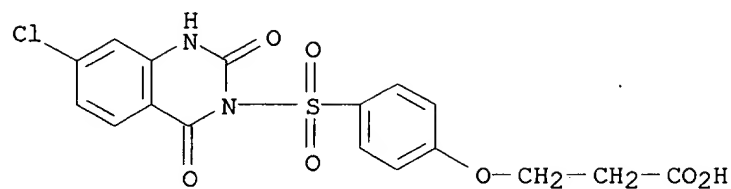
RN 294865-40-0 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3,4-dichlorophenyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 294865-41-1 CAPLUS

CN Propanoic acid, 3-[4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenoxy]- (9CI) (CA INDEX NAME)



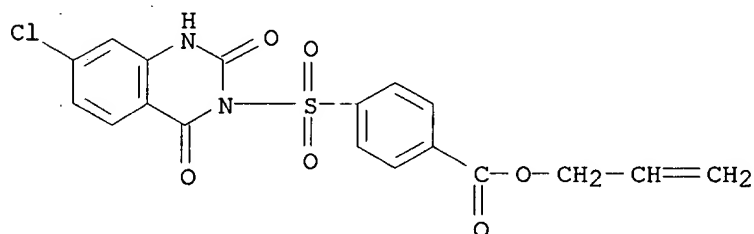
IT 189061-14-1P 189061-33-4P 189062-57-5P
259537-02-5P 294865-42-2P 294865-43-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(substituted phenylsulfonylquinazolinedione derivs. as novel
nonpeptide

inhibitors of human heart chymase in relation to structure and
inhibition of chymotrypsin and cathepsin G)

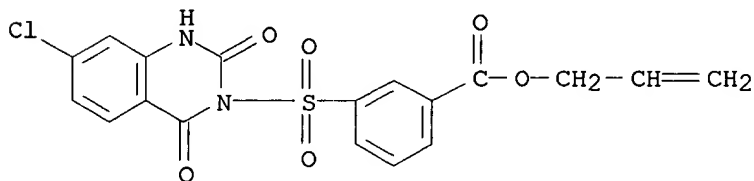
RN 189061-14-1 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]-, 2-propenyl ester (9CI) (CA INDEX NAME)



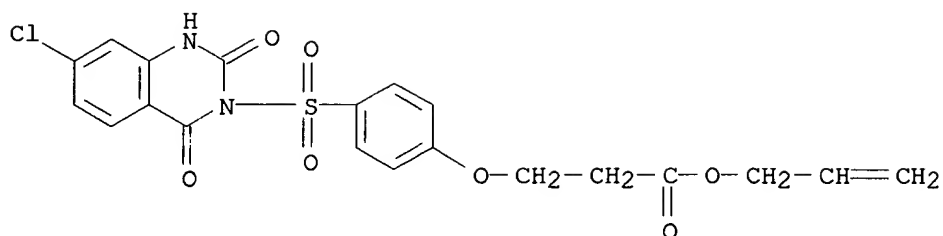
RN 189061-33-4 CAPLUS

CN Benzoic acid, 3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]-, 2-propenyl ester (9CI) (CA INDEX NAME)



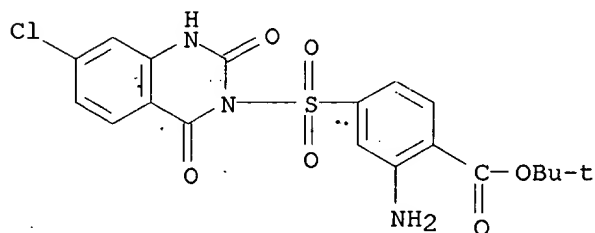
RN 189062-57-5 CAPLUS

CN Propanoic acid, 3-[4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]phenoxy]-, 2-propenyl ester (9CI) (CA INDEX NAME)



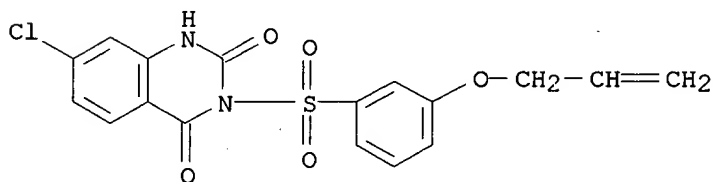
RN 259537-02-5 CAPLUS

CN Benzoic acid, 2-amino-4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



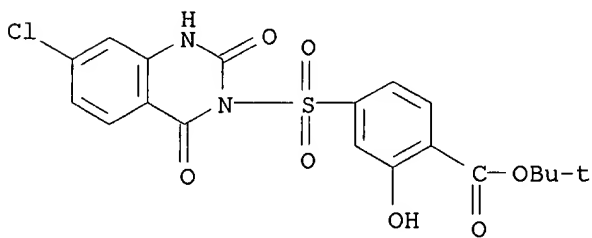
RN 294865-42-2 CAPLUS

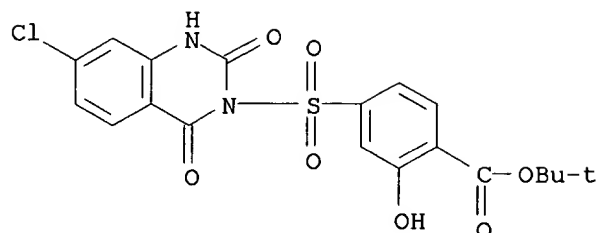
CN 2,4(1H,3H)-Quinazolidinedione, 7-chloro-3-[[3-(2-propenyloxy)phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 294865-43-3 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)





RE.CNT 43

RE

- (1) Banovac, K; Proc Soc Exp Bio Med 1993, V203, P221 CAPLUS
 (3) Caughey, G; J Biol Chem 1991, V266, P12956 CAPLUS
 (4) Eda, M; Bioorg Med Chem Lett 1998, V8, P913 CAPLUS
 (5) Eda, M; Med Chem Lett 1998, V8, P919 CAPLUS
 (6) Fukami, H; Curr Pharm Des 1998, V4, P439 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 2000:144865 CAPLUS

DN 132:180595

TI Preparation of quinazoline derivatives as chymase inhibitors

IN Fukami, Harukazu; Ito, Akiko; Imajo, Seiichi

PA Suntory Limited, Japan

SO PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000010982	A1	20000302	WO 1999-JP4503	19990820
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9953037	A1	20000314	JP 1998-235633 A	19980821
			AU 1999-53037	19990820
			JP 1998-235633 A	19980821
			WO 1999-JP4503 W	19990820
EP 1114035	A1	20010711	EP 1999-938565	19990820
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
			JP 1998-235633 A	19980821
			WO 1999-JP4503 W	19990820

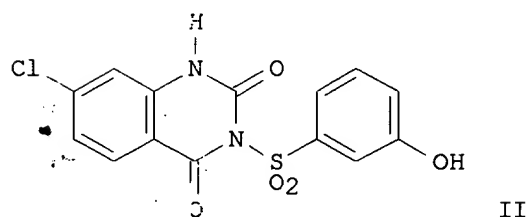
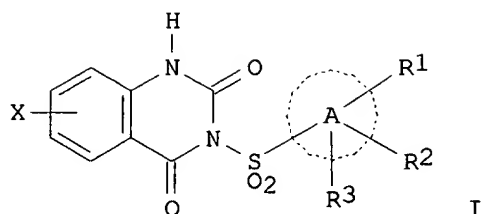
OS MARPAT 132:180595

GI

Habte

<7/24/2001

Own work



AB The title compds. [I; A = aryl; R1 = OH, NH2, alkylamino, etc.; R2, R3 = H, alkyl, halo, etc.; X = H, alkyl, alkoxy, etc.] which have a chymase inhibitory activity and suppress the exacerbation of vascular permeability

induced by chymase, were prepd. and formulated. E.g., a 3-step synthesis of II which showed IC50 of 0.36 .mu.M against chymase, was given.

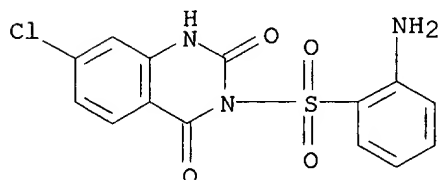
IT **259536-60-2P 259536-69-1P 259536-72-6P**
259536-74-8P

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

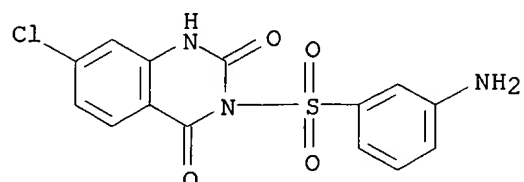
(prepn. of quinazolines as chymase inhibitors)

RN 259536-60-2 CAPLUS

CN 2,4(1H,3H)-Quinazolin-2-one, 3-[(2-aminophenyl)sulfonyl]-7-chloro- (9CI)
 (CA INDEX NAME)

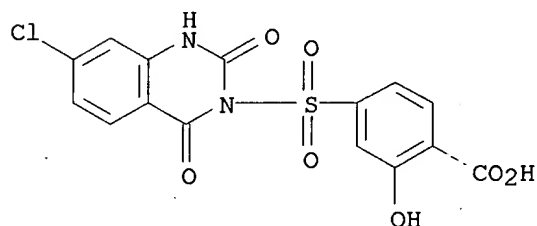


RN 259536-69-1 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(3-aminophenyl)sulfonyl]-7-chloro- (9CI)
(CA INDEX NAME)

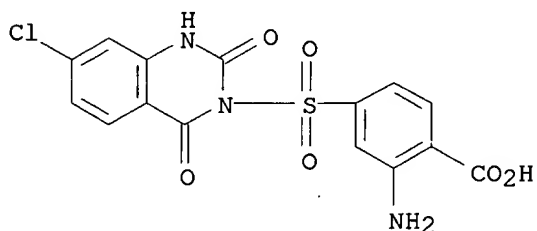
RN 259536-72-6 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy- (9CI) (CA INDEX NAME)



RN 259536-74-8 CAPLUS

CN Benzoic acid, 2-amino-4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



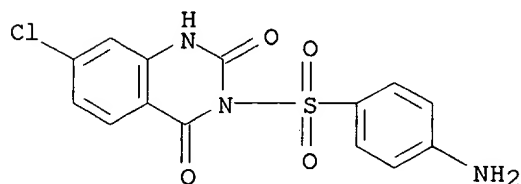
IT 189062-66-6P 259536-59-9P 259536-61-3P
259536-62-4P 259536-63-5P 259536-64-6P
259536-65-7P 259536-66-8P 259536-67-9P
259536-68-0P 259536-70-4P 259536-71-5P
259536-73-7P 259536-75-9P 259536-76-0P
259536-77-1P 259536-78-2P 259536-79-3P
259536-80-6P 259536-81-7P 259536-82-8P
259536-83-9P 259536-84-0P 259536-87-3P
259536-88-4P 259536-89-5P 259536-90-8P

259536-91-9P

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of quinazolines as chymase inhibitors)

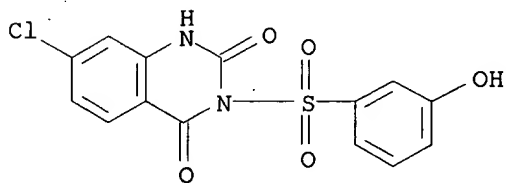
RN 189062-66-6 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-aminophenyl)sulfonyl]-7-chloro- (9CI)
(CA INDEX NAME)



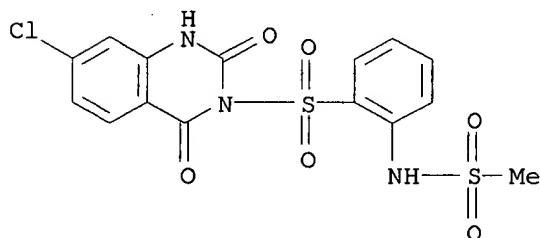
RN 259536-59-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3-hydroxyphenyl)sulfonyl]- (9CI)
(CA INDEX NAME)



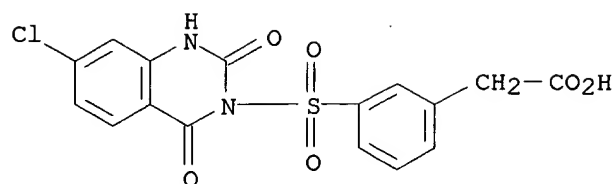
RN 259536-61-3 CAPLUS

CN Methanesulfonamide, N-[2-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



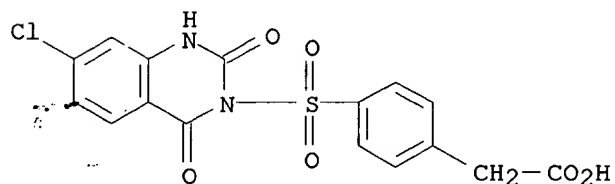
RN 259536-62-4 CAPLUS

CN Benzeneacetic acid, 3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



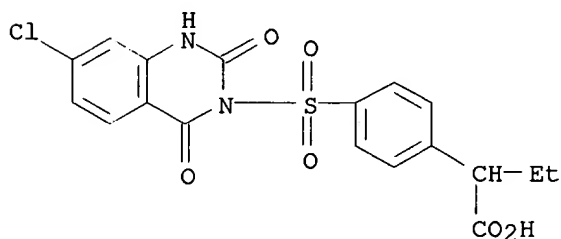
RN 259536-63-5 CAPLUS

CN Benzeneacetic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



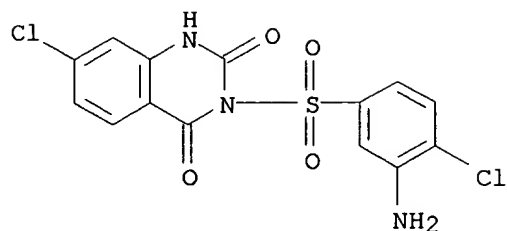
RN 259536-64-6 CAPLUS

CN Benzeneacetic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-.alpha.-ethyl- (9CI) (CA INDEX NAME)



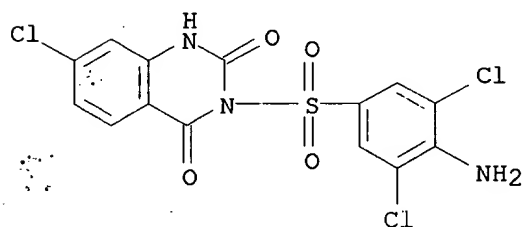
RN 259536-65-7 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione,
3-[(3-amino-4-chlorophenyl)sulfonyl]-7-chloro-
(9CI) (CA INDEX NAME)



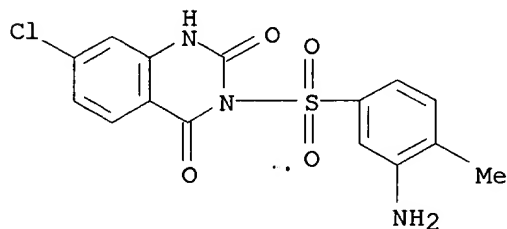
RN 259536-66-8 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-amino-3,5-dichlorophenyl)sulfonyl]-7-chloro- (9CI) (CA INDEX NAME)



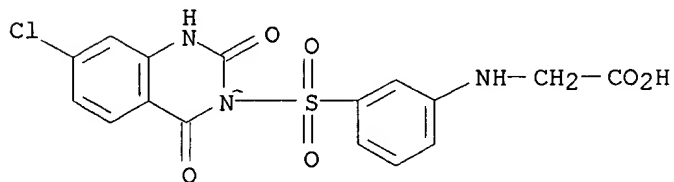
RN 259536-67-9 CAPLUS

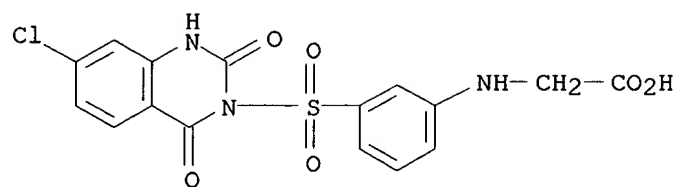
CN 2,4(1H,3H)-Quinazolinedione, 3-[(3-amino-4-methylphenyl)sulfonyl]-7-chloro- (9CI) (CA INDEX NAME)



RN 259536-68-0 CAPLUS

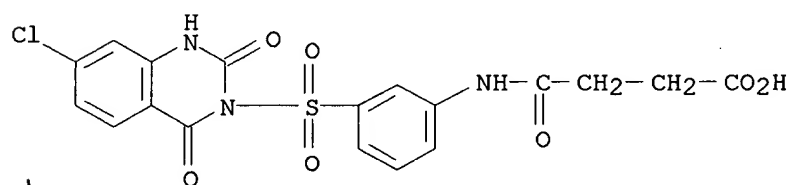
CN Glycine, N-[3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenyl]- (9CI) (CA INDEX NAME)





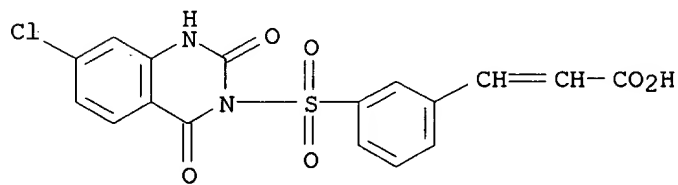
RN 259536-70-4 CAPLUS

CN Butanoic acid, 4-[[3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)



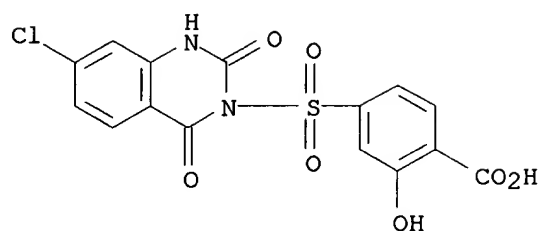
RN 259536-71-5 CAPLUS

CN 2-Propenoic acid, 3-[3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 259536-73-7 CAPLUS

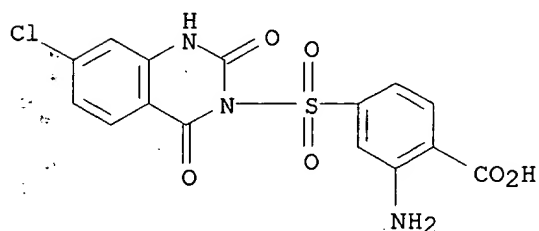
CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy-, monosodium salt (9CI) (CA INDEX NAME)



● Na

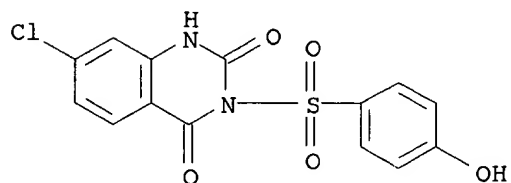
RN 259536-75-9 CAPLUS

CN Benzoic acid, 2-amino-4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-, monosodium salt (9CI) (CA INDEX NAME)



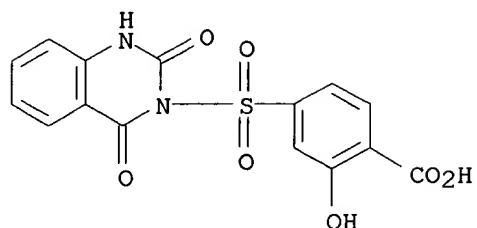
● Na

RN 259536-76-0 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-hydroxyphenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

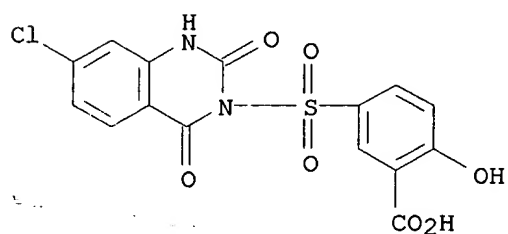
RN 259536-77-1 CAPLUS

CN Benzoic acid, 4-[(1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy- (9CI) (CA INDEX NAME)



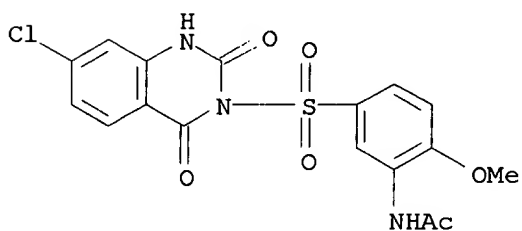
RN 259536-78-2 CAPLUS

CN Benzoic acid, 5-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-hydroxy- (9CI) (CA INDEX NAME)



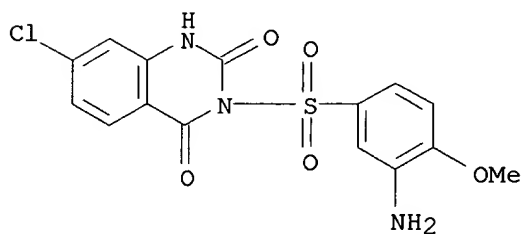
RN 259536-79-3 CAPLUS

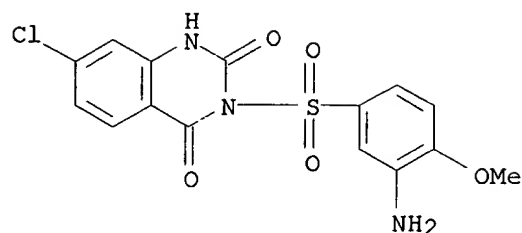
CN Acetamide, N-[5-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-methoxyphenyl]- (9CI) (CA INDEX NAME)



RN 259536-80-6 CAPLUS

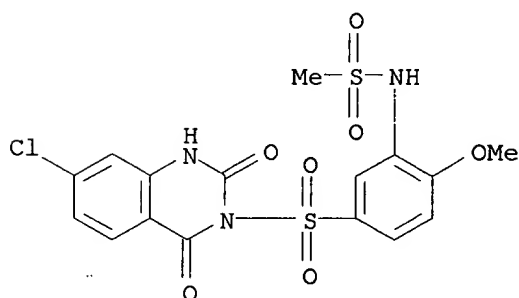
CN 2,4-(1H,3H)-Quinazolinedione, 3-[(3-amino-4-methoxyphenyl)sulfonyl]-7-chloro- (9CI) (CA INDEX NAME)





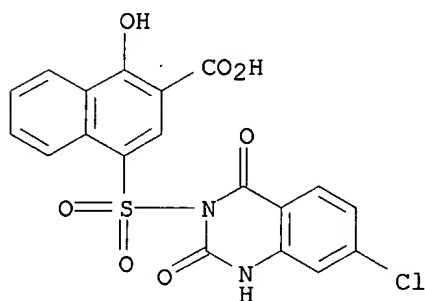
RN 259536-81-7 CAPLUS

CN Methanesulfonamide, N-[5-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-methoxyphenyl]- (9CI) (CA INDEX NAME)



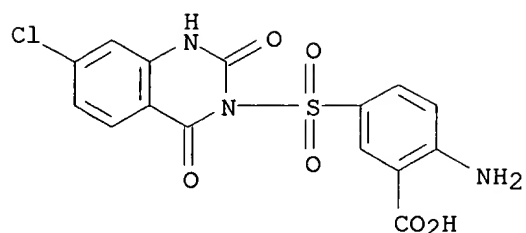
RN 259536-82-8 CAPLUS

CN 2-Naphthalenecarboxylic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-1-hydroxy- (9CI) (CA INDEX NAME)



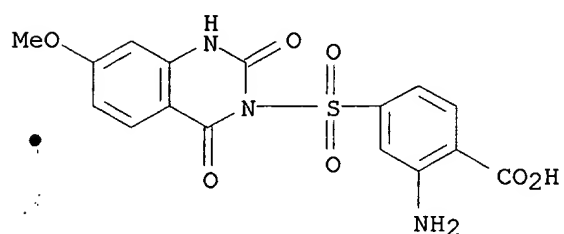
RN 259536-83-9 CAPLUS

CN Benzoic acid, 2-amino-5-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



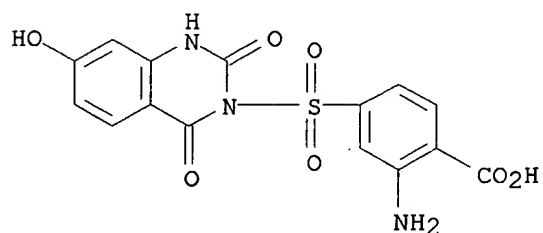
RN 259536-84-0 CAPLUS

CN Benzoic acid, 2-amino-4-[(1,4-dihydro-7-methoxy-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



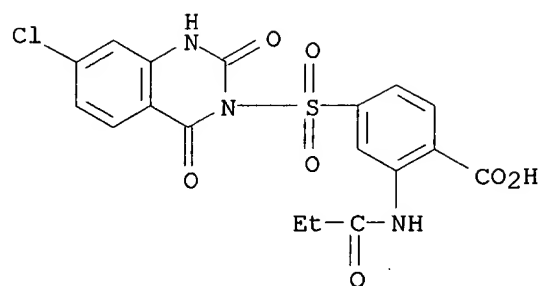
RN 259536-87-3 CAPLUS

CN Benzoic acid, 2-amino-4-[(1,4-dihydro-7-hydroxy-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



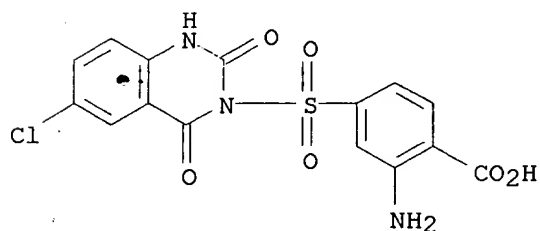
RN 259536-88-4 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-[(1-oxopropyl)amino]- (9CI) (CA INDEX NAME)



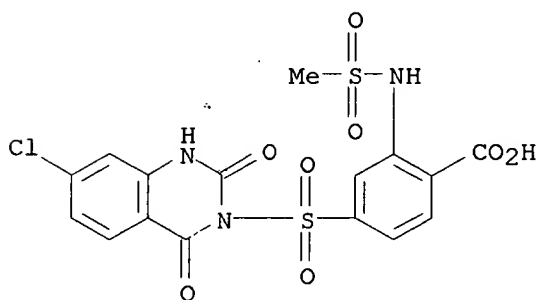
RN 259536-89-5 CAPLUS

CN Benzoic acid, 2-amino-4-[(6-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 259536-90-8 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-[(methylsulfonyl)amino]- (9CI) (CA INDEX NAME)



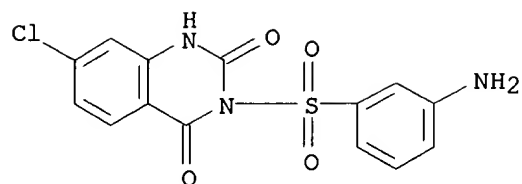
RN 259536-91-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(3-aminophenyl)sulfonyl]-7-chloro-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 259536-69-1

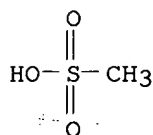
CMF C14 H10 Cl N3 O4 S



CM 2

CRN 75-75-2

CMF C H4 O3 S

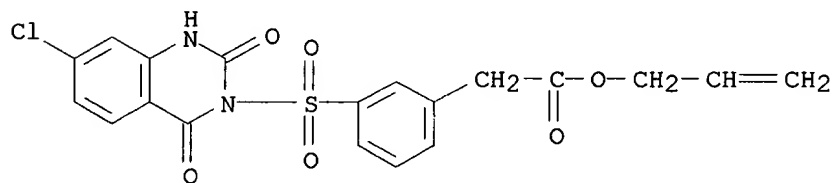


IT 259536-93-1P 259536-95-3P 259537-02-5P

259537-03-6P 259537-12-7P

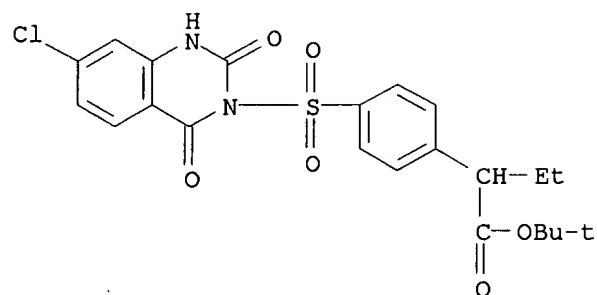
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of quinazolines as chymase inhibitors)

RN 259536-93-1 CAPLUS

CN Benzeneacetic acid, 3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]-, 2-propenyl ester (9CI) (CA INDEX NAME)

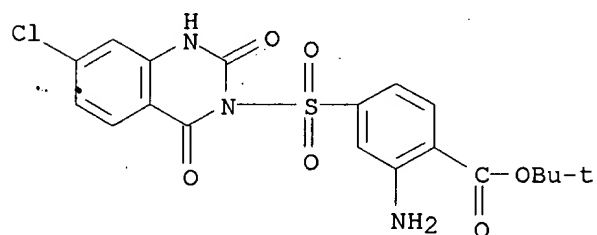
RN 259536-95-3 CAPLUS

CN Benzeneacetic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]-.alpha.-ethyl-, 1,1-dimethylethyl ester (9CI) (CA
INDEX NAME)



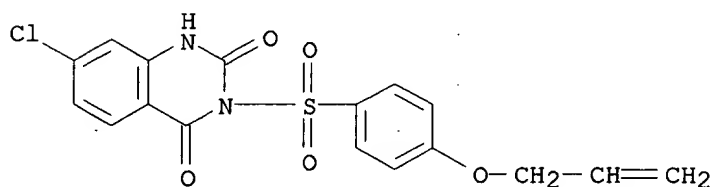
RN 259537-02-5 CAPLUS

CN Benzoic acid, 2-amino-4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



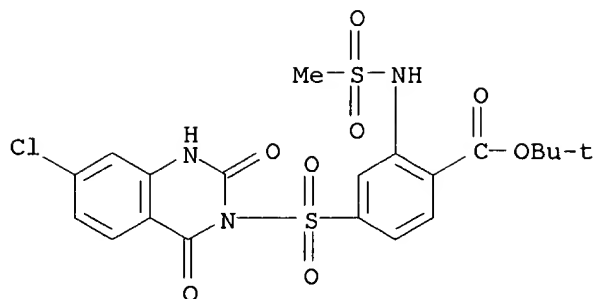
RN 259537-03-6 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[[4-(2-propenyloxy)phenyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 259537-12-7 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-2-[(methylsulfonyl)amino]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REACNT 5

RE

- (1) Kunitaka, T; JP 05-169832 A 1993 CAPLUS
- (2) Liao, Y; Canadian Journal of Cardiology V11(Suppl F), P13F
- (3) Niwata, S; Journal of Medicinal Chemistry 1997, V40(14), P2156 CAPLUS
- (4) Pedersen, O; WO 9745400 A 1997 CAPLUS
- (5) Suntory Ltd; EP 0795548 A 1997 CAPLUS

L5 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1997:310799 CAPLUS

DN 126:293363

TI Preparation of 2-phenylsulfonyl- and 2-(heterocyclylsulfonyl)quinazoline derivatives as chymase inhibitors

IN Fukami, Harukazu; Ito, Akiko; Niwata, Shinjiro; Kakutani, Saki; Sumida, Motoo; Kiso, Yoshinobu

PA Suntory Limited, Japan; Fukami, Harukazu; Ito, Akiko; Niwata, Shinjiro; Kakutani, Saki; Sumida, Motoo; Kiso, Yoshinobu

SO PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DT Patent

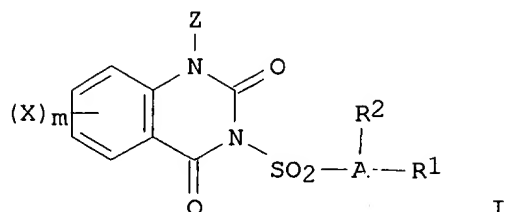
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9711941	A1	19970403	WO 1996-JP2830	19960927
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE				JP 1995-285437	19950928
				JP 1996-116557	19960510
	EP 795548	A1	19970917	EP 1996-932039	19960927
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL,				
	PT, SE				
				JP 1995-285437	19950928
				JP 1996-116557	19960510
				WO 1996-JP2830	19960927
	US 5814631	A	19980929	US 1997-849114	19970528
				JP 1995-285437	19950928
				JP 1996-116557	19960510
				WO 1996-JP2830	19960927

OS MARPAT 126:293363

GI



AB Quinazoline derivs. represented by general formula [I; group A = benzene, pyridine, pyrrole, or pyrazole ring; m = 0-2; X = OH, NO₂, halo, C1-4 (halo)alkyl, or (halo)alkoxy, C7-12 aralkyloxy; X = group to form a naphthalene or quinoline ring together with the benzene ring to which X is

attached; R₁, R₂ = H, halo, C1-4 (halo)alkyl, NO₂, cyano, pyrazolyl, tetrazolyl, C1-4 alkyl, CO₂H, allyloxycarbonyl, C1-4 (un)substituted alkoxy; or R₁ and R₂ together with the benzene ring represent a naphthalene or quinoline ring; Z = H, C1-4 (halo)alkyl, C2-5 alkenyl, (un)substituted aralkyl, arom. heterocyclylalkyl, C1-4 alkoxy-carbonylmethyl, allyloxycarbonylmethyl, (1.degree. or 2.degree. amino)carbonylmethyl, (un)substituted aralkyloxymethyl; proviso given] or pharmacol. acceptable salts thereof are prepd. They are useful as preventives/remedies for cardiac and circulatory diseases (e.g. hypertension or heart failure) caused by abnormal overprod. of angiotensin II. Thus, a quinazolinodione deriv. (II; R = H) (prepn. given) was condensed with 3-(diethylamino)-1,5-dihydro-2,4,3-benzodioxaphosphepine in the presence of tetrazole in DMF, followed by oxidn. with m-chloroperbenzoic acid in CH₂Cl₂ and hydrogenolysis over 10% Pd-C in dioxane under H atm. to give II [R = P(O)(OH)₂]. II (R = H) and II [R = P(O)(OH)₂] showed IC₅₀ of 0.060 and 0.025 .mu.M, resp., for inhibiting human heart chymase. The title compds. I also inhibited cathepsin G and chymotrypsin. Formulation examples contg. I were given.

IT **116445-95-5P 189061-05-0P**

RL: BAC (Biological activity or effector, except adverse); RCT

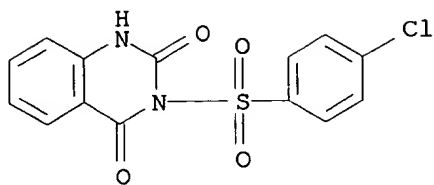
(Reactant);

SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

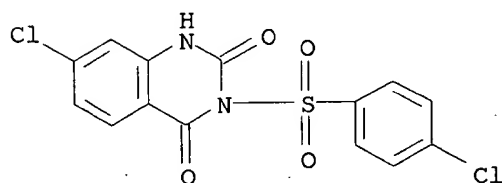
(prepn. of N-phenylsulfonyl- and N-(heterocyclylsulfonyl)quinazoline derivs. as chymase inhibitors for treating heart or circulatory diseases)

RN 116445-95-5 CAPLUS

CN 2,4(1H,3H)-Quinazolinodione, 3-[(4-chlorophenyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 189061-05-0 CAPLUS
 CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-chlorophenyl)sulfonyl]- (9CI)
 (CA INDEX NAME)

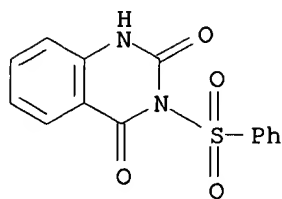


IT 116445-93-3P 189061-07-2P 189061-10-7P
 189061-12-9P 189061-14-1P 189061-16-3P
 189061-18-5P 189061-20-9P 189061-22-1P
 189061-24-3P 189061-26-5P 189061-29-8P
 189061-31-2P 189061-33-4P 189061-35-6P
 189061-37-8P 189061-39-0P 189061-41-4P
 189061-43-6P 189061-45-8P 189061-46-9P
 189061-47-0P 189061-48-1P 189061-54-9P
 189061-56-1P 189061-59-4P 189062-40-6P
 189062-46-2P 189062-47-3P 189062-50-8P
 189062-51-9P 189062-52-0P 189062-53-1P
 189062-54-2P 189062-55-3P 189062-56-4P
 189062-57-5P 189062-60-0P 189062-61-1P
 189062-62-2P 189062-63-3P 189062-64-4P
 189062-65-5P 189062-66-6P 189062-67-7P
 189062-68-8P 189062-69-9P 189062-70-2P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

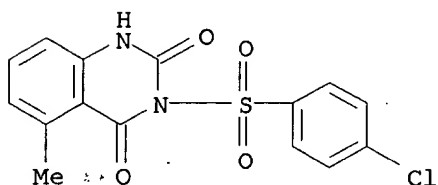
(prepn. of N-phenylsulfonyl- and N-(heterocyclisulfonyl)quinazoline derivs. as chymase inhibitors for treating heart or circulatory diseases)

RN 116445-93-3 CAPLUS
 CN 2,4(1H,3H)-Quinazolinedione, 3-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



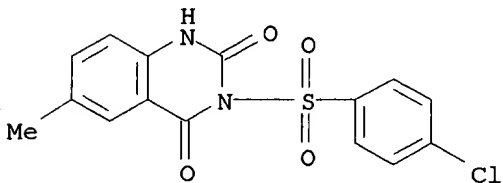
RN 189061-07-2 CAPLUS

CN 2,4(1H,3H)-Quinazolidinedione, 3-[(4-chlorophenyl)sulfonyl]-5-methyl- (9CI)
(CA INDEX NAME)



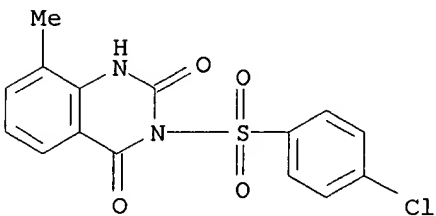
RN 189061-10-7 CAPLUS

CN 2,4(1H,3H)-Quinazolidinedione, 3-[(4-chlorophenyl)sulfonyl]-6-methyl- (9CI)
(CA INDEX NAME)



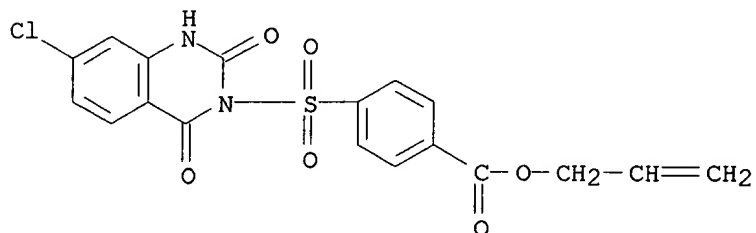
RN 189061-12-9 CAPLUS

CN 2,4(1H,3H)-Quinazolidinedione, 3-[(4-chlorophenyl)sulfonyl]-8-methyl- (9CI)
(CA INDEX NAME)



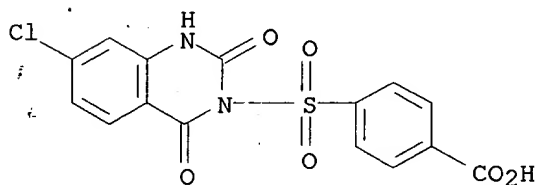
RN 189061-14-1 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-, 2-propenyl ester (9CI) (CA INDEX NAME)



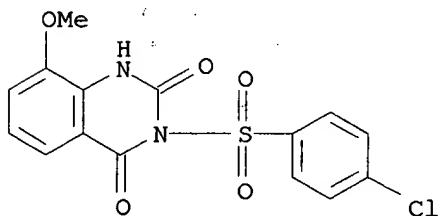
RN 189061-16-3 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)



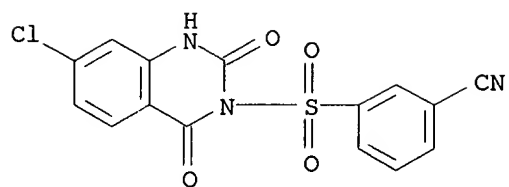
RN 189061-18-5 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-8-methoxy- (9CI)
(CA INDEX NAME)

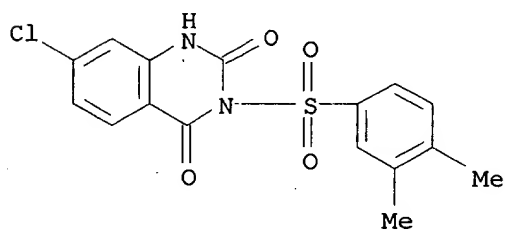


RN 189061-20-9 CAPLUS

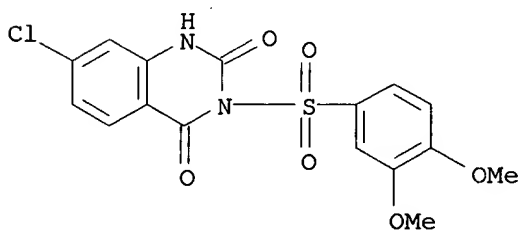
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3-cyanophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)



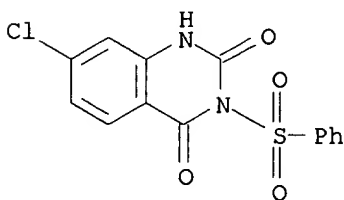
RN 189061-22-1 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3,4-dimethylphenyl)sulfonyl]-
(9CI) (CA INDEX NAME)

RN 189061-24-3 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(3,4-dimethoxyphenyl)sulfonyl]-
(9CI) (CA INDEX NAME)

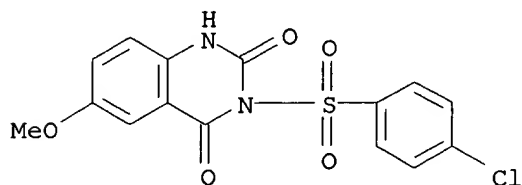
RN 189061-26-5 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-(phenylsulfonyl)- (9CI) (CA
INDEX
NAME)

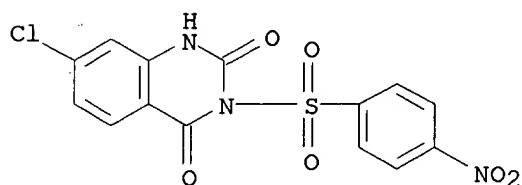
RN 189061-29-8 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-6-methoxy-
(9CI)

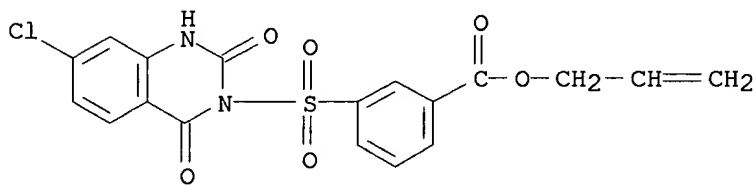
(CA INDEX NAME)



RN 189061-31-2 CAPLUS

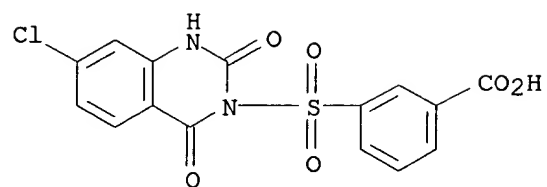
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-nitrophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

RN 189061-33-4 CAPLUS

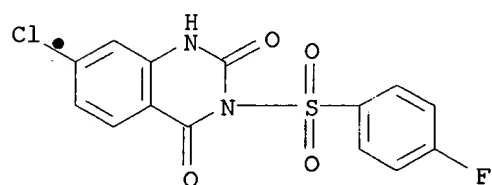
CN Benzoic acid, 3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]-, 2-propenyl ester (9CI) (CA INDEX NAME)

RN 189061-35-6 CAPLUS

CN Benzoic acid, 3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-
quinazolinyl)sulfonyl]- (9CI) (CA INDEX NAME)

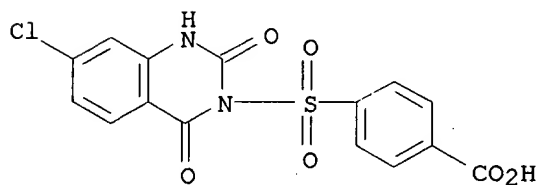


RN 189061-37-8 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-fluorophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

RN 189061-39-0 CAPLUS

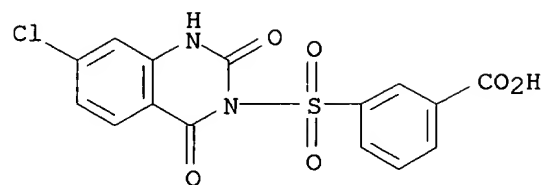
CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

RN 189061-41-4 CAPLUS

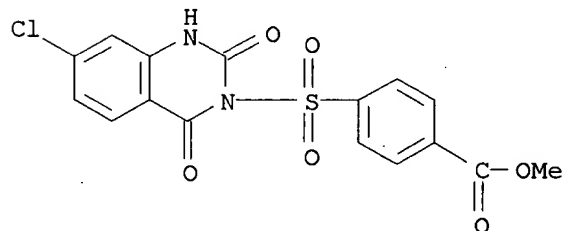
CN Benzoic acid, 3-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

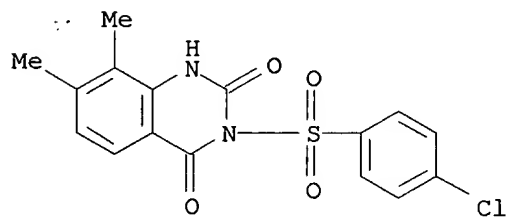
RN 189061-43-6 CAPLUS

CN Benzoic acid, 4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



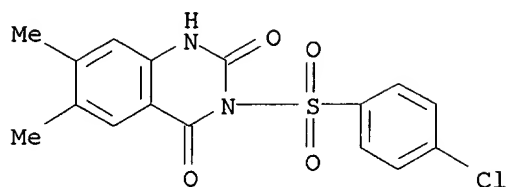
RN 189061-45-8 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7,8-dimethyl- (9CI) (CA INDEX NAME)



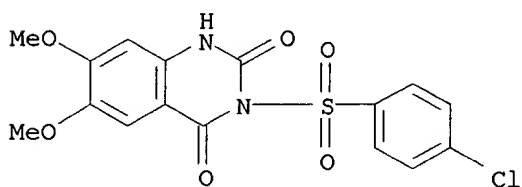
RN 189061-46-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-6,7-dimethyl- (9CI) (CA INDEX NAME)



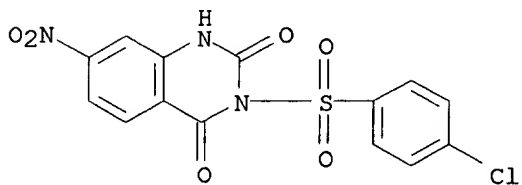
RN 189061-47-0 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-6,7-dimethoxy- (9CI) (CA INDEX NAME)



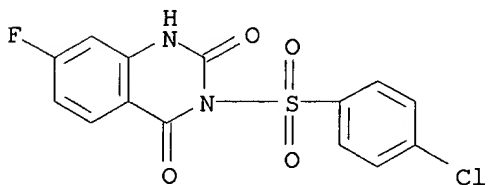
RN 189061-48-1 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-nitro- (9CI) (CA INDEX NAME)



RN 189061-54-9 CAPLUS

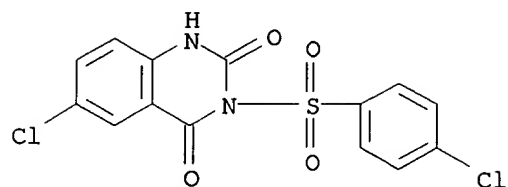
CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-fluoro- (9CI) (CA INDEX NAME)



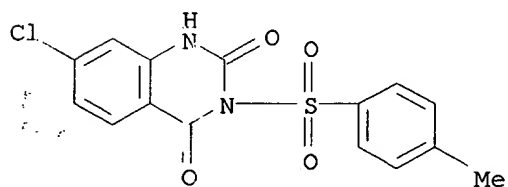
RN 189061-56-1 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 6-chloro-3-[(4-chlorophenyl)sulfonyl]- (9CI)

(CA INDEX NAME)

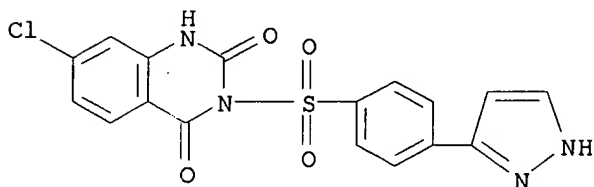


RN 189061--59-4 CAPLUS

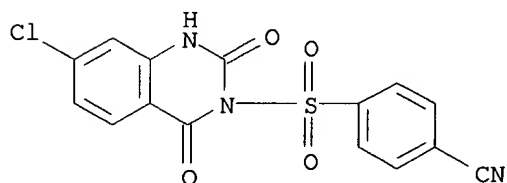
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-methylphenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

RN 189062-40-6 CAPLUS

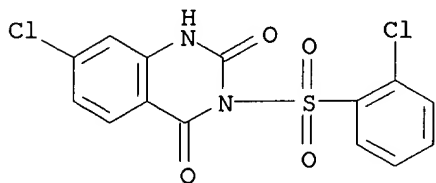
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[[4-(1H-pyrazol-3-yl)phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 189062-46-2 CAPLUS

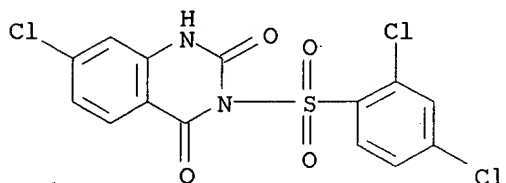
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-cyanophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

RN 189062-47-3 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(2-chlorophenyl)sulfonyl]- (9CI)
(CA INDEX NAME)

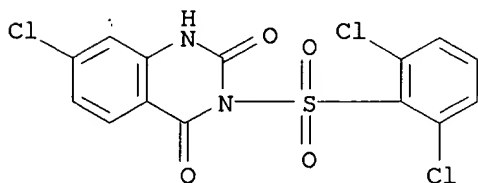
RN 189062-50-8 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(2,4-dichlorophenyl)sulfonyl]- (9CI) (CA INDEX NAME)



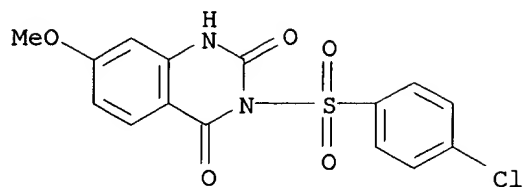
RN 189062-51-9 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(2,6-dichlorophenyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 189062-52-0 CAPLUS

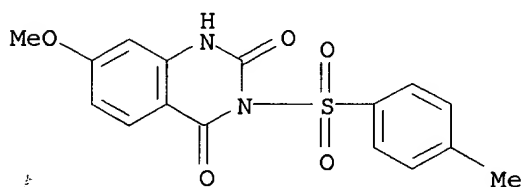
CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-methoxy- (9CI)
(CA INDEX NAME)



RN 189062-53-1 CAPLUS

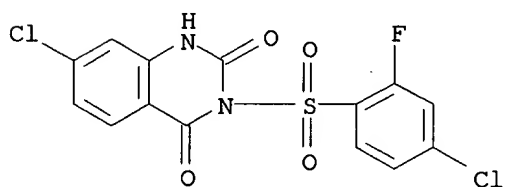
CN 2,4(1H,3H)-Quinazolinedione, 7-methoxy-3-[(4-methylphenyl)sulfonyl]- (9CI)

(CA INDEX NAME)



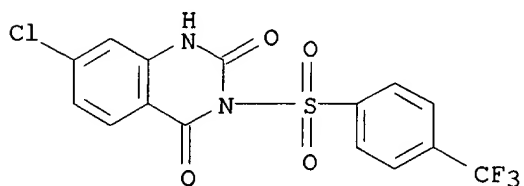
RN 189062-54-2 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-chloro-2-fluorophenyl)sulfonyl]- (9CI) (CA INDEX NAME)



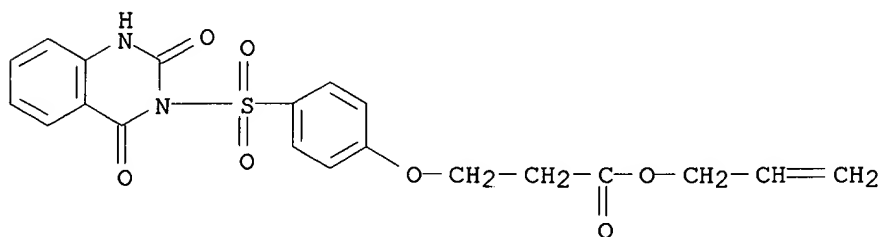
RN 189062-55-3 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[[4-(trifluoromethyl)phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



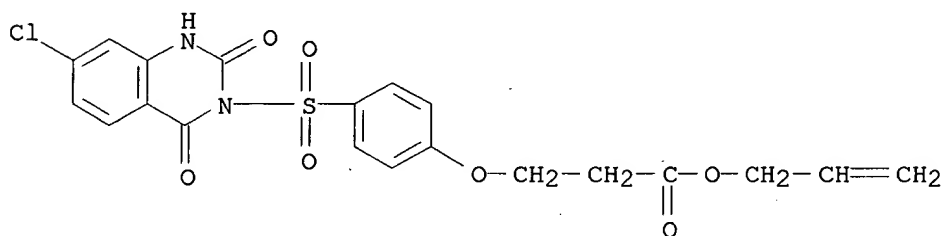
RN 189062-56-4 CAPLUS

CN Propanoic acid, 3-[4-[(1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenoxy]-, 2-propenyl ester (9CI) (CA INDEX NAME)



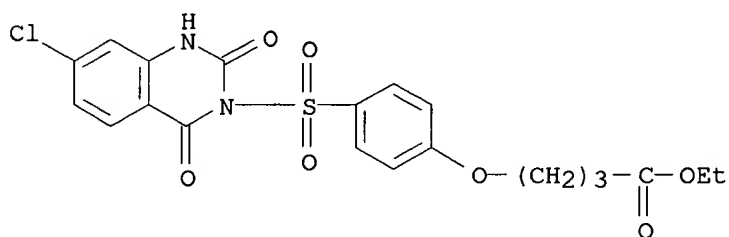
RN 189062-57-5 CAPLUS

CN Propanoic acid, 3-[4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenoxy]-, 2-propenyl ester (9CI) (CA INDEX NAME)



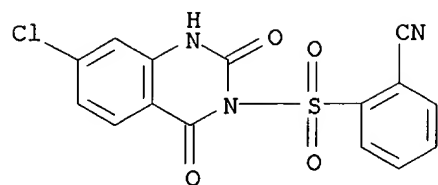
RN 189062-60-0 CAPLUS

CN Butanoic acid, 4-[4-[(7-chloro-1,4-dihydro-2,4-dioxo-3(2H)-quinazolinyl)sulfonyl]phenoxy]-, ethyl ester (9CI) (CA INDEX NAME)



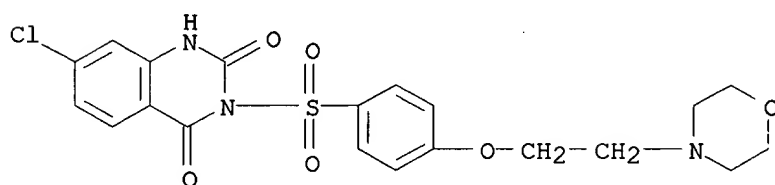
RN 189062-61-1 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(2-cyanophenyl)sulfonyl]- (9CI) (CA INDEX NAME)



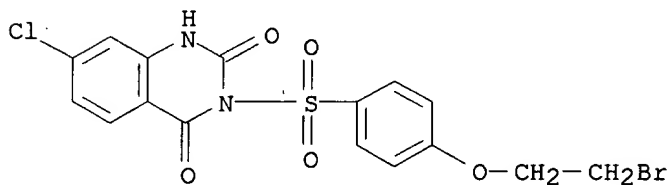
RN 189062-62-2 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[[4-[2-(4-morpholinyl)ethoxy]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



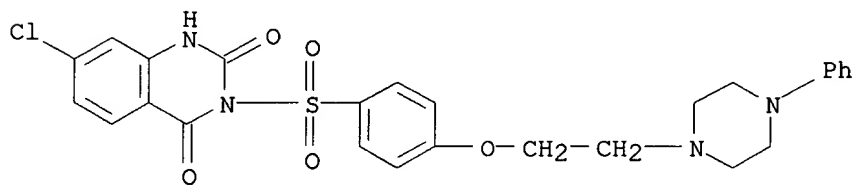
RN 189062-63-3 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[[4-(2-bromoethoxy)phenyl]sulfonyl]-7-chloro- (9CI) (CA INDEX NAME)



RN 189062-64-4 CAPLUS

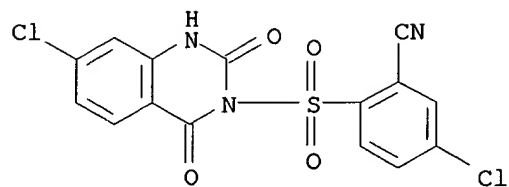
CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[[4-[2-(4-phenyl-1-piperazinyl)ethoxy]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



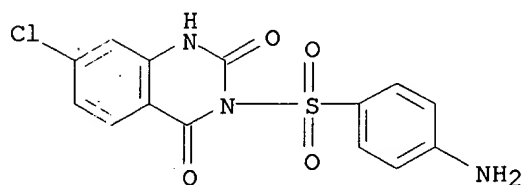
RN 189062-65-5 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 7-chloro-3-[(4-chloro-2-cyanophenyl)sulfonyl]-

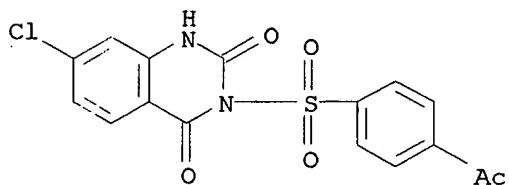
(9CI) (CA INDEX NAME)



RN 189062-66-6 CAPLUS

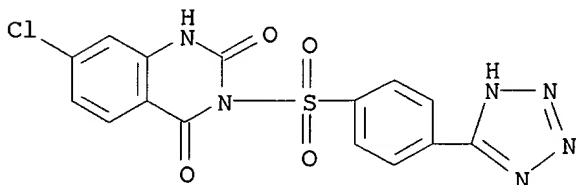
CN 2,4(1H,3H)-Quinazolidinedione, 3-[(4-aminophenyl)sulfonyl]-7-chloro- (9CI)
(CA INDEX NAME)

RN 189062-67-7 CAPLUS

CN 2,4(1H,3H)-Quinazolidinedione, 3-[(4-acetylphenyl)sulfonyl]-7-chloro- (9CI)
(CA INDEX NAME)

RN 189062-68-8 CAPLUS

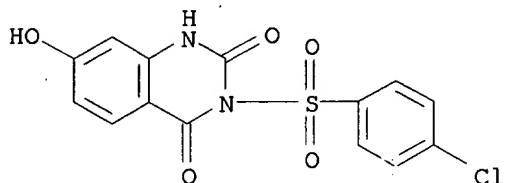
CN 2,4(1H,3H)-Quinazolidinedione, 7-chloro-3-[[4-(1H-tetrazol-5-yl)phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 189062-69-9 CAPLUS

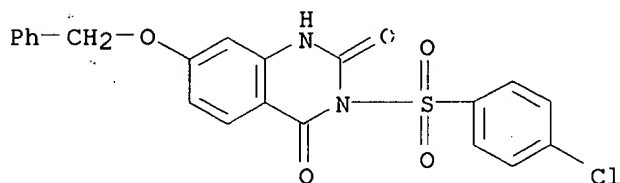
CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-hydroxy-
(9CI)

(CA INDEX NAME)



RN 189062-70-2 CAPLUS

CN 2,4(1H,3H)-Quinazolinedione, 3-[(4-chlorophenyl)sulfonyl]-7-(phenylmethoxy)- (9CI) (CA INDEX NAME)



L5 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1988:528941 CAPLUS

DN 109:128941

TI Methyl N-(arylsulfonyl)dithiocarbamates as intermediates in heterocyclic synthesis. Preparation of the isomeric systems
2-arylsulfonylamino-3,1,4H-benzoxazin-4-ones and 3-arylsulfonyl-2,4-(1H,3H)-quinazolinediones
AU Garcia Tercero, J.; Lopez Aliaga, A.; Melendez Andreu, E.; Merchan Alvarez, F. L.; Tejero Lopez, T.

CS Fac. Cienc., Univ. Zaragoza, Zaragoza, Spain

SO An. Quim., Ser. C (1987), 83(2), 247-50

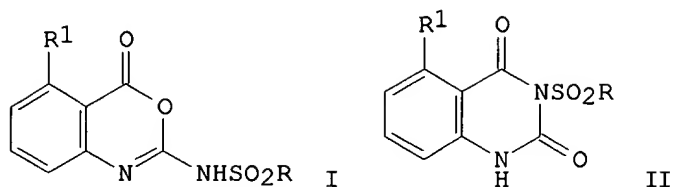
CODEN: AQSBD6; ISSN: 0211-1357

DT Journal

LA Spanish

OS CASREACT 109:128941

GI



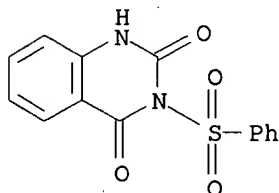
AB Treatment of K anthranilate or its 6-chloro deriv. with
(arylsulfonyl)dithiocarbamates $\text{RSO}_2\text{NHCS}_2\text{Me}$ ($\text{R} = \text{Ph}$, p-tolyl, p- ClC_6H_4),
in the presence of HgO in DMF at room temp., afforded benzoxazinones I ($\text{R} = \text{Ph}$, $\text{R}_1 = \text{H}$, Cl ; $\text{R} = \text{p-tolyl}$, p- ClC_6H_4 , $\text{R}_1 = \text{H}$). When the reaction was
carried out at higher temp. (50.degree. in THF), isomeric
quinazolinodiones II were obtained.

IT **116445-93-3P 116445-94-4P 116445-95-5P**
116445-96-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

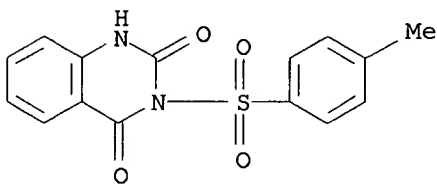
RN 116445-93-3 CAPLUS

CN 2,4(1H,3H)-Quinazolinodione, 3-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



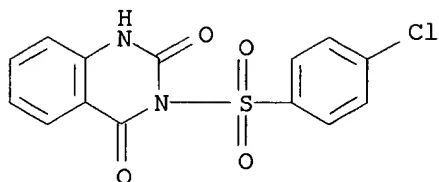
RN 116445-94-4 CAPLUS

CN 2,4(1H,3H)-Quinazolinodione, 3-[(4-methylphenyl)sulfonyl]- (9CI) (CA
INDEX NAME)

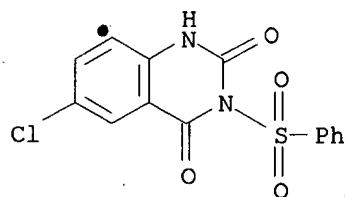


RN 116445-95-5 CAPLUS

CN 2,4(1H,3H)-Quinazolinodione, 3-[(4-chlorophenyl)sulfonyl]- (9CI) (CA
INDEX NAME)



RN 116445-96-6 CAPLUS
 CN 2,4(1H,3H)-Quinazolinedione, 6-chloro-3-(phenylsulfonyl)- (9CI) (CA
 INDEX
 NAME)



=> log y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
23.88	157.90

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-2.94	-2.94

CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 16:18:35 ON 24 JUL 2001